



HARRISONFIELDS HIGH SCHOOL

# The American School Board Journal

*A Periodical of School Administration*

September 1961

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## SPECIAL REPORT

How to Plan a High School,  
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SEPTEMBER, 1961

(For more information from advertisers, use postcard on page 57)

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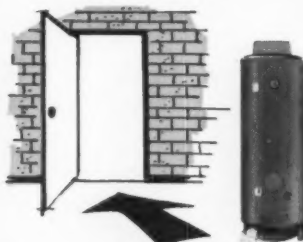
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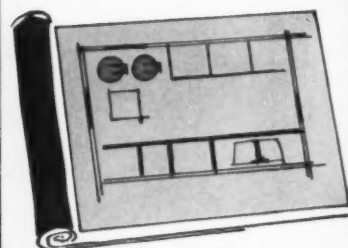


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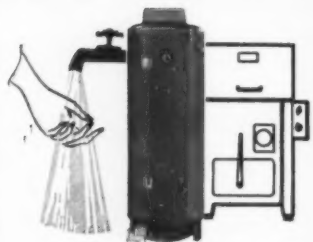
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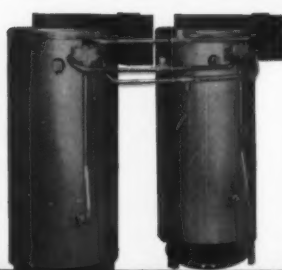
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# The American School Board Journal

September, 1961 Vol. 143, No. 3

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SEPTEMBER, 1961

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## OUR COVER

*The front entrance of Harborfields High School, Greenlawn, L. I., N. Y., is the September cover photo. For details about the school see page 22.*

# the school scene

■ Dallas, Tex., facing fractional integration of the schools in September, is determined not to become another Little Rock or New Orleans. Civic leaders, white and Negro, have conducted a quiet operation to accustom its citizens to a new order of race relations. The program went into operation when 159 Negroes walked quietly into 40 stores and restaurants and lunched besides whites without incident. The home-grown program is

unusual among the scores of cities grappling with the court's integration ruling. The main bone of contention, segregation vs. desegregation, has been sidetracked in favor of the more pressing question of law and order.

■ Plans for an intensive program aimed at reducing the numbers of young people who drop out before finishing high school, have been announced by William G. Carr, secre-

tary of the National Education Association. The program to get underway the first week in September, will seek to establish what the role of the schools should be in serving the educational needs of unemployed, out-of-school youths, between the ages of 16 and 20. The Ford Foundation has provided grants totaling \$910,000 for attacks on the dropout problem and other programs to help school children in slum neighborhoods of some of the large cities.

■ Less than two voters out of five have shown sufficient interest in school bond and tax elections to cast their ballot in the 12 years preceding 1960, according to a report of the U. S. Office of Education. Its research study revealed that the average turnout for a school financial election during this period was only 36.5 per cent of the eligible voters of each district. The turnout was greater in elections where issues were defeated in both bond and tax elections regardless of size of the district. The turnout was largest in small districts, and greater in medium-sized districts than in larger districts.

■ The New York City school scandal took on some new and, from the long-range viewpoint, significant dimensions in recent weeks. After nearly two months of charges of neglect of school buildings and impropriety and chicanery on the part of some school officials and employees, the spotlight has focused on a basic issue, that of the responsibilities of the board of education and the superintendent. Dr. James E. Allen, Jr., Commissioner of Education, has summoned the board members to a meeting in which he plans to call for a clear definition of the areas of school policy and administration. He indicated that much of the blame for the school system's apparent inability to cope with some of its problems stemmed from a lack of properly spelled out lines of responsibility. Expected to be brought out is the broader question of over-all structure and organization of the school system. It was brought out that one day in thirty is devoted to board decisions, and the remainder to waiting for them. Following a prodding by the Commissioner, the board has promised to act more vigorously.

■ W. A. Shannon, former executive director of the National School Boards Association, has been appointed Midwest regional director for Teaching Material Corp., a division of Grolier, Inc. Resigning his NSBA post last January, Bill Shannon was credited by the association's past president with pioneering and promoting the organization's present growth and expansion.



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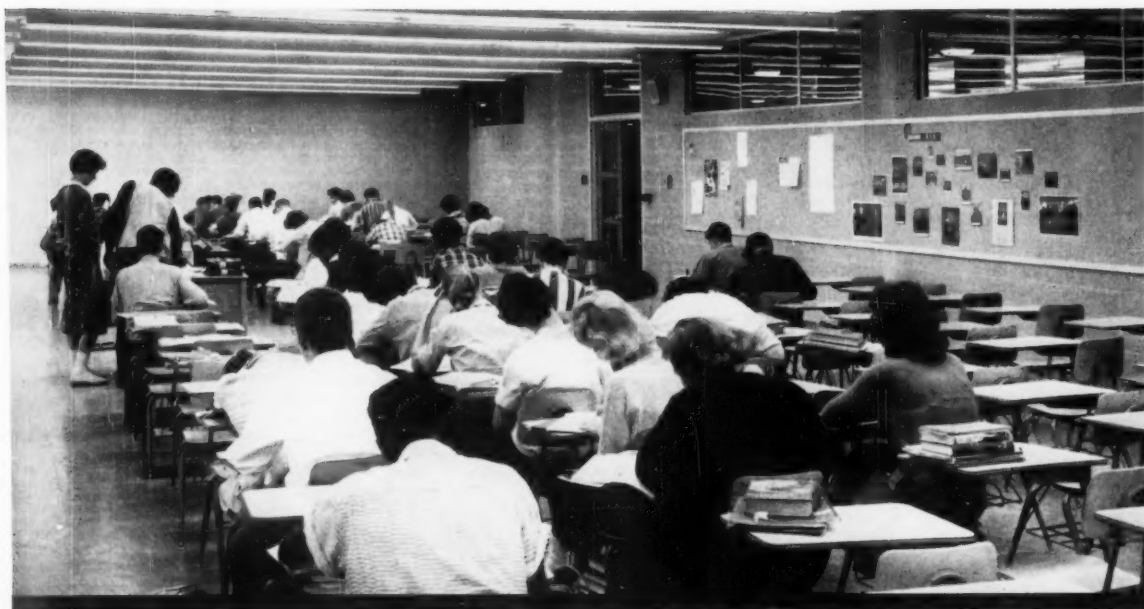
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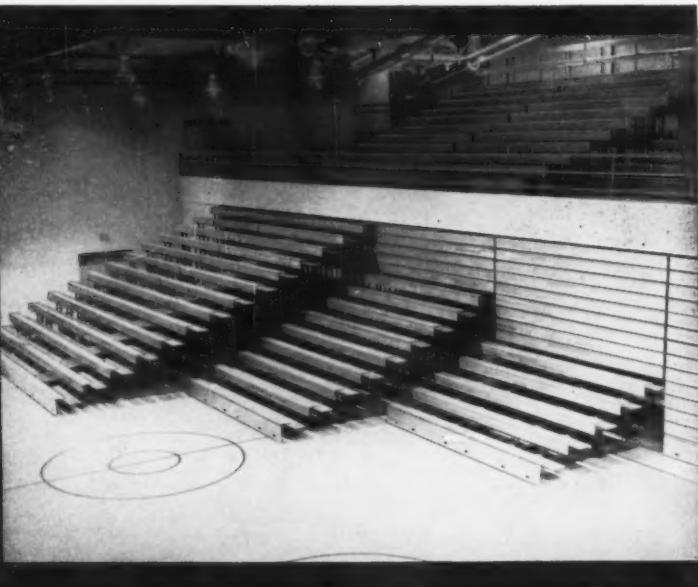
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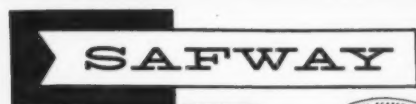
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WRITE FOR  
BULLETIN 169U

## what schools are doing about...

### emergency school repairs

New York's Superintendent, John J. Theobald recently asked district superintendents to meet with principals, members of local school boards, and others to discuss plans for handling emergency school repairs involving housekeeping and safety. Bernard E. Donovan, deputy superintendent in charge of business and administration, has taken definite steps toward organizing the emergency program. Provision has been made for the inspection and audit of work done in every school during the emergency summer program. The Bureau of Maintenance will also make technical inspections for contract compliances, and there will be additional spot checks by members of Mr. Donovan's staff. It is expected that an additional 300 mechanics will be needed for the crash repair program, which will be limited for the present to large repair and replacement items requiring the work of skilled engineers, specification writers, and normal contract procedures. In the fall, it is planned to have parents and local board members visit the schools early to check the progress of the repair program. □

### posture improvement

In Riverside, Ill., a posture analysis program has been in operation in grades two, four, six, seven, and eight during 1960. The program was set up through the joint efforts of the school administration, the physical education department, and the school nurse. The program is being carried on by the physical education department and consists of a discussion of posture, followed by the screening of each student. The examination includes a check of the feet, knee, pelvis, spine, chest, shoulders, neck, and head. Followup of these examinations are carried out by the physical education department in the classrooms and in the girls' after-school physical education program.

In the physical education classes, special emphasis is put on exercises that help to correct physical defects. The girls' after-school activities include analysis of walking and standing posture, exercises to music, scooter-board relays, and ball gymnastics. Classroom teachers are informed about the students' posture problems and are urged to remind them now and then as a help to developing good posture habits. □

### the demand for paperbacks

Book dealers in Akron, Ohio, report a constantly increasing demand for paperback classics by high school students seeking to expand their reading interests. The situation is attributed to the schools' intensive attack on pupils' reading problems and a planned effort to make more good books available to children of all ages. The introduction of paperback books in secondary schools has paralleled the launching of Akron's parent-teacher council.

*Concluded on page 52*



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Grey, Counterpoint Tan, Counterpoint White, Gala Blue.

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K. #6800. Samsontex vinyl-upholstered folding chair in Counterpoint Grey, Counterpoint Tan, Counterpoint White, Gala Blue.

L. #2625. Folding tablet-arm chair in Natural Blond Finish; back and frame in Grey or Brown.



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Fostoria High School before modernization.



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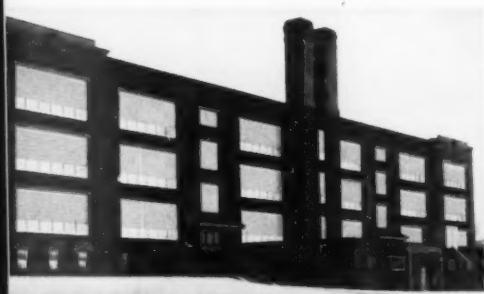


Shade Green Glass Blocks, installed in Boyceville, Wisconsin school, control severe sun conditions.

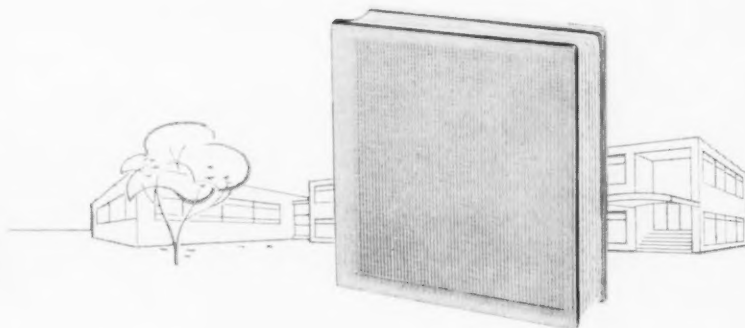
Shade Green floods classroom of Boyceville, Wisconsin, school with pleasant, diffused sunlight. Superintendent L. H. Mackie reports lower fuel costs, increased comfort.



Father Keiler, pastor of Transfiguration School, Detroit, is pleased with appearance and performance of Owens-Illinois Glass Block.



Custodian of Seiberling School in Akron, Ohio, finds it much easier to bring building up to proper temperature after installation of Shade Green Glass Block. C. B. Snodgrass is Superintendent of Schools.



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## St. Paul's Experiment in Science Education

The secondary school in the United States has undergone, in the past ten years, its most critical scrutiny in the history of public education. Rapid population growth was not paralleled by adequate expansion of budgets and facilities, and the result was too many students, too few teachers, and inadequate facilities. Discontent grew, and minor, inevitable but understandable inadequacies in education were suddenly blown far out of proportion.

In the fall of 1957, the Russians launched their first space satellite, and the nation turned, with new vigor, upon the public secondary school. Suddenly all the frustrations and fears of this technical victory by the Russians were directed against the public high schools: accusations ranging from improper language training to poor science instruction were blamed for our lack of scientists and failure to launch the first space satellite. To overcome Russia's advantage, drastic changes in science education were encouraged. Some changes were needed and long overdue; others, distorted and bordering on panic.

In St. Paul, the study of science education had started a year before this as a result of a special research study of the gifted student by Mrs. Mary Pilch of the St. Paul Public schools staff. The practical application of her findings was initiated in the areas of science and mathematics, but the long-range objective aimed toward programs for the gifted in all subject-matter areas.

Before the school year 1956-57, administrators of the St. Paul schools met with Mrs. Pilch to discuss a plan to apply the results of her study to a program which would stimulate

interest among outstanding students in mathematics and science. A broad, four-year program was developed and presented to the Hill Family Foundation, a St. Paul philanthropic organization, which accepted the recommendations and agreed to finance the program for four years. The resultant plan was called the St. Paul Student Developmental Program.

The school year 1956-57 was used for planning the total program. Administrative details were organized as were committees to handle policies of student admission and curricular changes. These committees were: an advisory committee, curriculum content committees in mathematics and science, and a student selection committee.

The advisory committee was responsible for program policy. As administrative head of the Student Developmental Program, all other committees made recommendations to it. Members of this committee included administrators, guidance counselors, and teachers (other than science and math) from the St. Paul schools. The P.T.A., local colleges, and various industries in the area also were represented on the committee.

A subcommittee dedicated to developing the science content of the program ranked second in importance to the advisory committee. This committee of administrators and junior and senior high school teachers worked out the philosophy, objectives, and subject matter of the program.

The problems of philosophy and objectives were deliberated at great length.

The primary philosophic concern was whether the program should be

### KENNETH A. BERG



*Mr. Berg is principal of Harding High School, St. Paul, Minn.*

one of enrichment or acceleration. The philosophy and objectives resolved by the subcommittee were based upon the premises that, first, teachers should keep uppermost in their minds that this was to be an experiment which should be approached with eagerness and objectivity; second, the final course outline would not be a rigid, finished product but rather a framework within which all teachers could work and up on which they could build. Formally the philosophy and objectives were stated as follows:

1. To reappraise and reorganize the existing science curriculum to meet better the needs of potentially outstanding students in grades nine through twelve who had been selected to participate in the Student Developmental Program;
2. To attempt to better co-ordinate the science courses at each grade level;
3. To encourage, challenge, and develop these potentially outstanding students to their fullest capacity;

4. To make the entire science curriculum one of enrichment, developing many and varied experiences, going farther and deeper into the content of the subject so as to provide the student with greater opportunities for self-development.

The decision toward enrichment rather than acceleration presented problems. Since most science teachers already felt that it was impossible to cover completely the material in the traditional sequence of courses, how was the science teacher going to find the time to increase experiences? If more time were to be devoted to science, it would be necessary to extend the school day or take time from other areas. The first was not possible from a financial standpoint; the second, undesirable from an educational standpoint. The answer seemed to be that the present science curriculum should be re-evaluated and science time used more efficiently.

#### **Ninth Grade Course Repetitious**

In St. Paul, prior to 1957, the only science course offered in the ninth grade was general science. Many times this course was passed over by the outstanding student who planned to study science in senior high school. A study of all courses showed that most of what was taught in grade nine science was repeated in one or more of the other science courses. It seemed logical that time could be gained by replacing the ninth grade course with one which would not be the source of repetition.

The result was the development of a ninth grade course that was biology-centered. The only areas retained from the traditional ninth grade course were the studies of astronomy and geology. The course (entitled "Life in the Universe") was a 'study of the universe—its origin, the solar system, the earth as a part of the solar system, and life on the earth. Since the new course was to be biology-centered, the greatest part of the time was devoted to "life on the earth."

Each teacher of the ninth grade course was provided with a curriculum guide which included a laboratory manual, a list of recommended audio-visual aids, and reference materials. Prior to the opening of school, a workshop was held for the teachers involved. Since each teacher was paid to attend, workshop attendance was compulsory.

The next problem facing the committee was the course offering in the tenth grade, a replacement for the traditional tenth grade biology. Essentially, the committee deliberated whether chemistry or physics should be offered in grade ten. The chemists felt that immaturity on the part of tenth graders would handicap their judgment which, in many experiments, determines success or failure. The advantages of delaying chemistry, however, were outweighed by those for delaying physics. The committee concluded that a greater advantage would be gained in delaying physics as long as possible to allow for more math instruction to precede physics. As a result, chemistry was moved from its traditional twelfth grade position to the tenth grade.

This "new" chemistry course was not entirely new from a subject-matter standpoint for it was still basic, introductory chemistry, but changes resulted from additions to the usual content and variations in time spent in each area. In brief, the course included theoretical chemistry (12 weeks), inorganic chemistry (12 weeks), organic chemistry (6 weeks), and chemistry of nuclear energy (2 weeks). All units were carefully structured to avoid repetition of anything taught in the ninth grade course.

The curriculum guide for this course included a laboratory manual, a set of recommended demonstrations with directions, a list of audio-visual materials, and a list of reference materials. As in the ninth grade program, teachers of the tenth grade program attended a Saturday workshop throughout the school year dealing with the new curriculum.

The eleventh grade offering was physics-centered, and since physics is traditionally offered in grade eleven, no chronological change in the position of physics relative to the rest of the curriculum was made. The committee, aware of the national trend in physics as motivated by the activities of the Physical Science Study Committee, wished to produce changes which had been long overdue in the modern secondary school physics course. The work of the P. S. S. C. was carefully scrutinized. An attempt was made to retain from the traditional course that material which is essential to an understanding of the basic principles of physics. It was desired to retain from the P. S. S. C. approach to physics that which would

balance properly with the traditional physics to the best advantage to the student.

The course was divided into six basic units: measurement of matter, mechanical energy, heat energy, electrical energy, wave energy, and physics of nuclear energy. Included with each curriculum guide for the course was a laboratory manual, lists of supplementary materials, and lists of reference materials. As in the other areas, the teachers of the physics offering attended a workshop conducted by leading scientists from the local university, colleges, and industries in the area.

#### **Twelfth Grade Course Open**

From the standpoint of curriculum development in science, the twelfth grade portion of this program offered the greatest change. Revamping and rearranging the science curriculum left open a year of science instruction in the twelfth grade. Remembering the original philosophical decision of enrichment in preference to acceleration, the committee studied the areas covered in grades nine through eleven to see which appeared to be the weakest and in need of additional study.

Of necessity, the first question to be answered dealt with the area of study during this past year. The committee's choice lay either in the development of a course based upon one of the three fields already covered in the first three years of the program or in the development of a course based upon all three. In light of the enrichment approach and keeping in mind the objective of stimulating interest in the study of science, the committee aimed at the development of a twelfth grade course which would be in three parts—biology, physics, chemistry—with one-third of the school year devoted to each of the three subject matter areas.

The greatest danger in a course of this type was that it could develop into a glorified general science course at the senior level. The danger would be realized if the course were assigned to one teacher for it would be most difficult to find one teacher who would have equal backgrounds in biology, chemistry and physics. The committee recommended that this course be taught by a team of three teachers, each specializing in one of the three science areas. While one

member of the team was involved in instruction, the other two would be expected to assist in planning and preparation.

In each of the three subject matter areas, the teachers were asked to contribute ideas regarding the specific content and type of course that should be offered.

In physics the objective was to extend the traditional physics course to include an understanding of the following areas:

1. Man's control of the electron has led to an increased control of his environment and will contribute to the conquering of space. Study will be given to the nature of the electron, its control, and the use of the controlled electron.

2. Man's understanding and control of the atom has led to a tremendous source of power. The study of the atom, the energy contained within, and man's control of this energy represent problems which generations may attempt to probe. This course will lay the foundations for solutions to such problems.

With the guide in physics was developed a set of experiments that could be used to supplement classroom study.

The chemistry content attempted to reflect nature's drive toward equilibrium and the chemist's search for an understanding of the depth and breadth of chemical equilibrium. In the chemistry course emphasis was on:

1. Chemical equilibrium as it relates to the chemical procedures involved in all reactions and particularly those of qualitative analysis which require a thorough knowledge of basic equilibrium;

2. An introduction to the study of hydrocarbons and their derivatives;

3. Chemistry as it relates to biology and physics in our understanding of the physical and biological world.

In biology the committee attempted to select the areas that represented the fundamental unifying concepts in biology applicable to both plants and animals. The plan was to direct the efforts toward a curriculum that was biochemically-biophysically oriented. The basic life processes toward which student understanding was directed were

1. Both living and non-living systems are made up of the same materials and are subject to the same physical and chemical laws, but they

differ in that the former are characterized by metabolism, irritability, and reproduction.

2. Living things need a constant energy source. Plants have the ability to utilize the energy source of the physical world to build energy-laden compounds from which, in turn, they themselves and animals obtain their energy.

3. Organizational levels exist in living things from simple cells to complex organisms. These levels show a relationship between form and function.

4. Although living things reproduce and develop in various ways, the nature of growth and production of form follow basic patterns.

5. Environmental forces, acting upon changes in protoplasm, have caused living things to change, resulting in series diversification where some forms have been derived from others.

In addition to the formal classroom study, other experiences were planned for the students. They were encouraged to carry on project work which would unveil and encourage any latent creative talents.

In addition to the activities for each class, experiences on a city-wide basis were also planned. Personnel from local concerns employing research scientists and college science teachers presented lectures and demonstrations. To date, students in the program have heard from Dr. Alfred Nier of the University of Minnesota, noted scientist who first isolated U235 in large enough quantities for experimentation, and Dr. Joachim Kuettner of the space project "Mercury."

#### Students Took College Courses

Another experience resulted from arrangements made with Hamline University. This university agreed to take a limited number of the most outstanding students for on-campus classes in both science and mathematics. In science, the course taken at the university level was taken over and above the student's regular-high school load.

To provide further enrichment for the capable members of the program, an internship program was organized in co-operation with St. Paul industrial concerns. Each intern was given a nine-week assignment to an industrial scientist working on some form of basic research.

<sup>1</sup> The student was thereby acquainted with some of the less glamorous details of experimentation, and he also received a firsthand picture of the organization and operation of a modern industrial laboratory. Interest and motivation for the selection of a scientific career were two of the desired outcomes of this program.

For the teachers of the twelfth grade course, a special subject matter workshop was organized. Teachers of the three areas involved studied the guide and determined the subject matter experiences which they needed to teach the course effectively. A series of eight Saturday morning workshops were then organized about each of the subject matter areas, and highly qualified teachers were engaged to meet with the science teachers.

#### Final Evaluation to Come

The final evaluation of the program in terms of the objectives set for the students cannot be made until the end of the 1960-61 school year when the first class completes the last year of the program. In the judgment of the teachers in the program, there has been a rejuvenation of interest among the better students as they were challenged to higher levels of achievement.

There are some outcomes of this program that are very evident at the present time. The science curriculum has been scrutinized by the science teacher in a manner as has never been done before. From this scrutiny have come changes which will result eventually in a new curriculum that will be to the improvement of all science courses at every level from the elementary through the secondary school. Experience may prove that some of the changes were wrong, but when the final equilibrium is reached, the curriculum will be more sound and stable.

The most evident immediate outcome is the effect the program has had upon the teaching staff. Working with each other, teachers on the various committees have had opportunities to exchange ideas and to extend horizons. The professional response, the eager enthusiasm, and the *esprit de corps* which has developed and gained strength among the science teachers has been a testimony to the fine, professional zeal of the teachers themselves. ■

Many years ago Mary Follett defined a profession as a group which:

- Establishes its own standards
- Maintains its own standards
- Improves its own standards
- Keeps its members up to standards
- Educates the public to appreciate the standards
- Protects the public from those not meeting the standards
- Protects individual members from each other.

In the light of this definition the reader is asked to consider the following propositions, descriptive of teachers in a general way:

1. *Teachers tend to be more docile than other groups in the United States.* In contrast to laborers, for example, teachers are reluctant to stand together on salary demands, issues of national importance, standards of preparation and admission to professional societies. Teachers rarely agree on anything and everybody knows it. As a consequence, their influence is far less effective than it could be.

2. *Teachers are inadequately organized.* Teachers have more organizations

teaching is really not a profession that when a shortage occurs, as in the case of the last decade or so, there is a natural, an easy truncation of standards, both in time and quality. Yet evidence of studies across the nation indicates that circumventing any standards helps not at all. In fact the higher the standards, the more young people are attracted to teaching. Who, after all, wishes to be associated with a field attainable by everyone?

A correlative to these ideas is the assumption that teachers will complete their education in service. Teachers forget, however, that learning at a fraction of the in-service rate inevitably means falling increasingly farther behind since at no time can it be truthfully said that teachers have "caught up" with their fields.

4. *Teachers do not as a group represent enough ability for their proper functioning in a complicated world.* Independent and governmental studies and experience have shown the following: too many teachers are no brighter than the average pupils they teach; too few people of top ability enter teaching as compared with other professions; in many colleges and universities prospective teachers are in general near the bottom groups in the institution as a whole in general ability, even in doctoral programs; except in isolated communities there seems to be no element of pride that comes from association with people of intellectual power and ability.

5. *Teachers are uncritical of other teachers' work, the books they write, the research they do.* Rarely does a professional book receive anything but glowing tributes in the professional journals. Critiques of research studies are rarely even attempted except by college staffs, that is, professors of education, and most of these are largely emotional. There is one exception. Let a nonprofessional write a book criticizing education as a field and the guns go to work. The shots are straight and direct hits. It is too bad that such trenchancy is not interactive.

Another side of this coin is equally devastating. Professional books tend to mimic each other in form and content, leaving the significant books few and far between. It may be that both editors and publishers are somewhat to blame. Often editors are authors, and may use their own works as criteria for the field. Publishers in their own way, of course, cannot risk an investment in a book either too different from, or superior to, the competition. Judgment of this kind may ultimately reflect upon the potential purchasers. All of these considerations suggest that the really prize books in education are relatively unknown or are avoided as too difficult, too theoretical or too controversial.

## Improving the Status of Teachers

LESTER SETH VANDER WERF



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than most occupational groups but no organization. New organizations appear constantly with sacking of an established one an unusual occurrence. Thus teachers proliferate their energies and duplicate their discussions, making their total organizational effort rather feeble.

3. *Teachers are not well enough prepared for their functions.* Many Americans are pleased when teachers can be hired with minimum standards or less. Yet, anyone who has been in the business of preparing teachers, or hiring them once they were "prepared," would admit that four years is an inadequate preparation period for a profession like teaching. Six years could be used and eight would approximate more nearly a desirable and effective basic condition.

So firmly rooted is the idea that



6. *Teachers have not kept up with their fields.* There is no professional group that escapes this charge to some degree. With advancements coming in all fields at such atomic rates, keeping abreast is a genuinely common complaint among practitioners. Yet, of whom except teachers can it be said that they are fifty years behind the times as suggested by the Physical Science Study Committee with reference to the teaching of physics.

Many are the reasons that can be suggested for this state of affairs: poor quality of teachers, inadequate preparation in which scholarship and general alertness are not prized,<sup>1</sup> salaries low enough to make the purchase of books and magazines a real burden, and uncertain status with a resulting uneven set of professional expectations.

7. *Teachers control relatively few of the conditions under which they work.* Required working hours, salary, awarding of increments, vacations, student load, matching preparation to assignment, fields and sub-segments of fields that must be taught, all are defined by state law or school board regulation. It is true that minimum salary laws have been enacted upon pressure by teachers. It is also true that tenure is a result of requests by teachers and with good reason. While petty school board members have wreaked havoc on many teachers, not all teachers currently favor tenure. Yet, tenure should be favored for the protection it affords the superior teacher who has courage to try the new, and who resists psychological slavery.

All in all teachers have a long road ahead if they are to become professional in truth as well as in name. Specifically they must assume much more responsibility for themselves. What follows may be suggestive of a partial program.

#### At the National Level

It would seem justified to indicate that states and local districts have failed to maintain a consistently high level of education, a thesis which has many implications for school finance and control.

Nonetheless, teachers or public education needs a much more aggressive leadership at the national level. The National Education Association has generally had excellent people in its service, but rarely if ever a person who was nationally prominent in the sense of outstanding labor leaders, politicians, musicians or athletes. A person who could maintain entree anywhere on the strength of his own personal accomplishments would probably have to be prominent to begin with and ought to

be paid a stupendously high salary. If the leadership were to have influence, relationships with the very top of the nation's power structure would have to be made and maintained.

The national leadership would in the first place work to improve teacher education. While the National Commission for Teacher Education and Professional Standards through its many conferences and programs has made some progress, the progress is not in proportion to the need. Again composed and headed by excellent people, the NCTEPS simply has not the prestige or power to make effective headway even with its own professional relatives.

The national leadership should encourage the voluntary but effective use of national guide lines for school programs. Such guide lines may take the following forms:

**GENERAL OUTLINES:** These may be roughly comparable to a good syllabus, may suggest topics, problems, sequence in one field, for one grade or several grades. Proved methods and techniques would be helpful.

**SPECIFIC CONCEPTS:** One thinks immediately of the development in mathematics (probability or sets, for example) and science (wave theory). These statements might be issued in regular bulletins with notations as to where in the program they could be placed and what eliminated to make room.

**EVIDENCE OF CONTROVERSIAL MATTERS:** Here it would be necessary for experts to review research findings and draw cautious conclusions helpful to the teachers. One thinks, for example, of the teaching of formal grammar, the application of the Rule of One or the Rule of Two in working with double digit divisors, or factors which have controlled or may control inflation. Some NEA research materials are a desirable but inadequate start in this direction.

**SUBJECTIVE MATERIAL:** Experts could be of real service here. One thinks of the relation of the social studies to patriotism. Since patriotism is largely emotional, we need authoritative statements drawn from the best writers, if for no other reason than to support those teachers who refuse to knuckle under crackpot pressure groups. One thinks too, of reading. While there is much available research on the teaching of reading which could be published under the previous category, it is included here for its susceptibility to misinterpretation. The Council for Basic Education has questioned the concept of readiness. Somehow this objection must be reconciled if not adequately answered.

The national leadership should work to improve the national organization. Much could be done. With the coming

of higher standards for teacher education some incentive would be provided to raise the standards of membership. Membership in professional organizations is not something which should have to be sold but something prized and purchased through desire to meet professional standards.

The national leadership should work toward one nationally consistent, if not nationally operated, measure of teacher competence. At the moment the only instrument available is the National Teacher Examination produced by Education Testing Service and administered annually in a number of centers around the country. While any national testing deserves the most cautious consideration, teachers' urging of some such program has dimensions other than a mandatory testing by the federal government.

The national leadership, working toward improvement of Teacher Education, teacher organizations and criteria of membership, guide lines for school programs, and common evaluation of teacher competence, would serve to enhance the status and financing of teaching. While it may be true that teachers have acquired some additional status in recent years, one could argue that the causes lie in the market place of short supply. One must be suspicious of any increased prestige wrought by economic factors alone. Actually of course, teachers must eventually assume responsibility for matching supply with demand, must control the market place themselves, or their position will remain precarious and subject to the whims of state, national, or international forces.

#### A Local Program

In addition to the national program necessary to raise the status of teaching to a professional level, much can be done at the local level. Every school or school district, depending upon size, should organize two committees, a Professional Standards Committee and a Research-Curriculum Committee.

The Professional Standards Committee should be composed of the most respected teachers, about whom there is no question either in the community or among the staff; teachers, furthermore, who have the best education and are obviously using it. What would this committee do?

The Professional Standards Committee should first solicit co-operation from the administration in its desire to upgrade standards. There are, presumably, few superintendents who would not welcome such mature responsibility. The committee would recommend, as vacancies occur, the criteria to be used for appointing a candidate, would, by subcommittee or specially appointed ad hoc committee as needed, carry on initial

<sup>1</sup>Many are asked to teach subjects with little or no preparation. As a result they are forced to spend their time keeping a day ahead of their students.

screening of candidates, recommend one or more candidates who satisfactorily meet the originally specified criteria.

On the other hand the professional Standards Committee should implement state and national codes of ethics, help enforce certification laws which are sometimes circumvented, and recommend the dismissal of poor teachers when necessary. This does not mean that the committee members must look under desks for evidence or be obnoxiously "snoopervisory" in other ways. It does mean that eyes and ears will be tuned in to incompetence implied by the teacher himself, the students, and the administration.

While most school systems are relatively free of politics, buying favors, promotions, and appointments occurs enough to place suspicion everywhere. The Professional Standards Committee should make periodic public reports indicating the "health" of the local political environment. The committee should make direct contact with the school superintendent and the school board to follow through. Getting nowhere, the committee should present the matter to the teaching staff as a whole to seek support for recommended or new action consistent with other policies. It is difficult to understand how professional teachers can accept political manipulation in silence.

Lastly, this committee should assume some responsibility for raising the standard of teacher education programs in their vicinity. It would make good sense to have this committee plan in-service programs to meet the variety of needs the staff may have, and encourage teachers to pursue further study in the light of school system needs (see Research Committee functions which follow). Encouraging programs of further study is not enough, however. Teachers have an obligation to report to institutions when courses and programs are either beneficial or completely innocuous. It is incomprehensible that teachers should avoid difficult courses or others which require final examinations. Yet this behavior is too common among teachers. When an institution or an instructor acquires the reputation for being "easy," teachers should so report. Deans, I believe, would welcome these reports. While teachers may justify the choice of weak courses on a number of grounds, they might consider how they appear to their own students to whom they grant no such choice.

The Research and Curriculum Committee should be composed of those teachers who are interested in research and experimentation, those who are leaders in formulating ideas, the most creative thinkers. Since it is unfortunate that creative people are not always the most respected in our society a dis-

tinction between the members of the two committees seems essential. The Research and Curriculum Committee likewise has much to achieve.

Since its basic purpose is to improve the instructional program, there will be much reading to be done. Continuous surveying of all types of educational literature is in order. Included here would be important studies completed or in progress, findings in subject matter fields as well as books and articles critical of school practices. The committee could recommend visits to other schools where significant programs are in progress and when necessary, suggest how time could be saved by eliminating some kinds of useless learnings as well as finding room for new learnings.

Second, the Research and Curriculum Committee should lend its energy to finding answers to local problems. This might be accomplished by designing local research studies with the hoped-for result of discovering how better teaching makes for better programs and better over-all planning leads to better teaching. It is even possible that teachers may find ways to save money. Even a few hundred dollars saved would enhance the attitude of the public to the teaching staff. On the other hand, while investment in education normally yields dividends in proportion to the amount spent, teachers should protect the public expenditure in return for the responsibility assumed.

Third, and equally important, objectives of education must be continuously appraised and the consistency of program in relation to objectives assayed. At times alternatives may be recommended or experimentation suggested to determine closer correlation between learning experiences and objectives, and tying in with research function mentioned above.

Lastly, this committee would evaluate the competencies of staff members in relation to school system need for specialists. Now it has been assumed normally that when a school system desired a specialist, one would be hired. While this may make sense in a large school system, forgetting for the moment that specialists so hired may make little if any impression, it is extremely expensive for small systems. Thus teachers may increase the effectiveness of the staff while at the same time extending their own expertness. Here, of course, the committee would co-ordinate activities with the Professional Standards Committee. Kinds of expertness should encompass the major subject fields such as mathematics, science, art and music, as well as so-called professional fields like research and measurement, psychology, reading, and finance. Reading may be offered as an example of the nature of a new kind of expert-

ness needed in today's schools. A reading specialist ought to bring together the disciplines of literature, linguistics, semantics, foreign language, psychology as well as the methodological and clinical study and experience. Too often in the past the reading supervisor has had little preparation aside from methods courses.

So far only national and local action have been reviewed. What of the state level? Both local and national pressure should be exerted to change the composition of state boards of education so that they are populated by classroom teachers who would be known for their courage and integrity as well as their scholarship and would be expected to work closely with national boards to interpret and implement the guide lines for state and local programs.

The sum total of the program represents greatly increased responsibility on the part of teachers. Before the American people, or even teachers for that matter, will accept this change of direction, a major confusion must be overcome, namely, that the public decides *what* must be taught, while teachers determine *how* the teaching is done. There are inherent in this duality so many inconsistencies that it hardly seems necessary to delineate them. But briefly let this be said. How can one teach students *how* to read or *how* to think in isolation from the *what*? With whom does one check for approval of substance, the local D.A.R., the fire chief or the school custodian? If the American people do not trust educators to perform this as well as the other functions listed above indeed we are all in a sad way.

Since teachers are now largely ineffective in directing their own rise in status and welfare, it is somewhat ridiculous to talk about salaries in isolation, as great as the salary priority is. Perhaps better salaries would encourage teachers to assume more responsibility for quality of admission and quality of performance. It may, on the other hand, be fully as true that the assumption of responsibility in these two related professional conditions will lead to substantially augmented compensation levels. As it now stands, salary disparities among teachers' groups are subject to emergencies of the market place. Thus, if all teachers expect to gain in equivalent manner, the supply may have to be regulated in relation to emergency market pressures. For several years now the National Education Association has published annual supply and demand studies, suggesting that the basic information is available. When teachers finally recognize that it is well nigh impossible to educate those that control their destiny, they could chalk up one giant step. ■

# A Co-operative Venture in Establishing a Salary Guide

KENNETH J. DUNN



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*Administrators, teachers and board members in Leonia, N. J., joined forces to work out a salary schedule satisfactory to all.*

"It smacks of unionism," said one board member. "Let's try it," replied another.

The Leonia, N. J., board of education was responding to a suggestion that a joint committee of five board members, five teachers, and four administrators seek to establish a teacher's salary guide that would be satisfactory to all. After much discussion, it was finally decided that the joint committee deserved a trial run with the superintendent leading the committee.

After some early sparring, the fourteen people finally organized themselves in pursuit of the common cause: the establishment of a good salary guide. Eight areas were listed for study, including number of increments, size of increments, difference between scales, etc. A chance remark, however, started the entire committee on a new track which proved highly successful.

"Leonia compares itself with schools which have similar college expectations, academic standards, and educational programs. We would like to be rated with them in salary as well as these other criteria," stated the committee. Almost im-

mediately committee members gathered names of school districts which were then discussed and retained or discarded. While the final list was not scientifically compiled with respect to the criteria discussed, it did satisfy the committee, the board and the faculty.

Small group meetings as well as faculty meetings and board meetings were held to discuss aspects of the proposal and to bring back opinions to the joint committee. Estimated cost and sample salaries were submitted and all agreed that a good guide had been devised. The faculty voted for it unanimously. A portion of the guide follows.

## 1. Philosophy

"All who have meditated on the art of governing mankind have been convinced that *the fate of empires depends upon the education of youth.*" — Aristotle. Every member of the educational team is important to the "education of youth" but the most important person in the educational process is the classroom teacher. Learning or inspiration to learn starts in the classroom. A salary guide for teachers should be devised with the following objectives in mind.

## 2. Working principles of a good salary guide

A. It should provide a competitive starting salary not only to attract the highest caliber candidate but to interest quality college students in teaching as a profession.

B. It should provide between 10 and 15 regular and automatic increments for *good, successful* teaching.

C. The automatic section of the guide should be at a level which would tend to retain all average, good teachers.

D. Rewards for superior service should be provided within and above a competitive automatic guide to encourage outstanding, dedicated teachers to remain in teaching, and to remain in Leonia.

E. Policies should be established for the dismissal of unsatisfactory nontenure teachers and for the withholding of increments of tenure teachers who are not doing a *good, average* job.

## 3. Salary Schedule

### A. Derivation

The following salary schedule was derived using the medians of the minimum and maximum salaries — the median number of steps on each scale, and a predictive factor of increase of 21 selected Bergen County schools. While any action by the present board is not binding on succeeding boards, and an emergency situation may result in the negation of any or all of its provisions, it was strongly urged that the formulas used in determining this scale be continued for at least three years.

### B. Statistical Basis

## Median Salaries (1960-1961)

A Scale	B Scale	C Scale	Predicted Rise
4400-7400	4700-7900	4900-8350	Minimum 200
14 steps	15 steps	16 steps	Maximum 200-300
The Schedule			
Step	A BACHELOR'S DEGREE	B MASTER'S DEGREE	C MASTER'S + 30
1	4600	4850	5100
2	4800	5050	5300
3	5000	5250	5500
4	5200	5450	5700
5	5400	5650	5900
6	5650	5900	6150
7	5900	6150	6400
8	6150	6400	6650
9	6400	6650	6900
10	6650	6900	7150
11	6900	7150	7400
12	7150	7400	7650
13	7400	7650	7900
14	7750	8000	8250
15	8000	8250	8500
16	8250	8500	8750
17	8500	8750	9000

# Leading A Successful Board Meeting



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ROLAND M. SANDELL

Pericles, a leader in the Athenian government for over thirty years, once stated, "We decide or debate carefully, in person, all matters of policy, holding that acts are foredoomed to failure when undertaken undiscussed."

In modern times, a conference is a common tool found in education and industry to find new ideas, gain agreement on policies already established, and *through discussion*, clarify methods and opinions of doing business, arriving at decisions, establishing objectives, or carrying on general and specific operations.

Whether a person is a businessman, a farmer, an educator, or in any other walk of life, he will find that there are certain principles involving conference techniques which will benefit him directly in the operation of his daily affairs.

These principles have been tested over a period of approximately ten years by the author, and he has found that they are almost fool-proof.

Too many times people are told to lead meetings or carry on discussions without being given proper instruction on the "how" of doing this all-important task.

In this article the "how" of conducting successful meetings will be stressed with a minimum treatment of theory because in the final analysis it is the "how" which insures success.

Leading a meeting is as much an art as playing the violin, painting a picture, or doing any other activity well. You will know when you have done a good job, and the longer you lead meetings, the better able you will be to gauge your accomplishments.

One factor which should be stressed when conducting meetings is that you should be yourself and avoid trying to be someone else whom you feel is a good leader. You must keep in mind that everyone is a unique individual, and there is a rather good chance that your uniqueness will be appreciated by a group just as much, if not more so, than that of someone else.

It makes no difference whether you are tall or short, skinny or fat, light-complected or dark. It is what you do that counts.

There are 14 rules which help to "break-the-ice" and get the meeting off to a good start.

If the group is inexperienced, the information in Figure 1 should be given to each member.

These meeting rules are sometimes referred to as the "human rights" pattern which should be discussed by the members of the group before the meeting begins.

An interpretation of the rules before the meeting actually begins helps the group reach objectivity, and minimizes the danger of hurting personal feelings and developing personal antagonisms. Such procedures create a favorable climate, and at the same time permit each individual to express his opinion.

After the leader has passed out a copy of the meeting rules to each member, he should ask individual members for an interpretation of each rule.

It is generally a good idea to start at one end of the meeting table and work around to each individual until all 14 rules have been covered.

It is suggested that the following points be brought out regarding each

rule as well as other interpretations mentioned by the conferees which would prove helpful. Please do not criticize positive interpretations. The meeting leader must remember that other persons have opinions which are just as good, and perhaps, even better than the ones he possesses.

## The 14 Rules Explained

1. **Realize the meeting belongs to you.**

The meeting belongs to the group and is not meant to be an opportunity for the meeting leader to "spout" at will. The leader guides the discussion. "You, as an individual conferee, are responsible for the meeting's success," is the general theme of this rule.

2. **Recognize the success of the meeting rests partly with you.**

The success of the meeting depends upon the participation of every member by oral expression and silent thinking upon the subjects presented.

3. **Enter into the discussion enthusiastically.**

The individual in the meeting must reflect and feel enthusiasm.

4. **Give freely of your experience.**

When the individual in a meeting gives freely of his experience, he is helping another member of the group grasp a new idea he has not tried or thought about. By the same token, he will receive beneficial ideas from someone else, even in cases where experience is rather limited.

5. **Confine your discussion to the problem.**

By adhering to this rule, confusion of issues is kept at a minimum, and it also has the tendency to prevent the discussion of subjects which will be taken up at another appropriate time. Keep the discussion on the subject at hand.

6. **Say what you think.**

Every member of the meeting should say what he really thinks. Silence and facial expressions are sometimes too difficult to interpret.

7. **Make your remarks impersonal and free from prejudice.**

This rule is of equal importance to the leader and the members of the group. It is a good idea for a leader to remember *not* to hold a grudge against a conferee because of what the conferee says, especially and particularly when the leader has asked for a comment.

When a leader asks a question, he can expect any answer and should not be impatient at what he hears. It must be remembered that he does not have before him, or in his mind, *all* the answers.

8. **Listen alertly to the discussion.**

This rule applies to all persons in attendance at the meeting. Every member of the group should concentrate on what is being said and exclusively devote his time to listening to the subject.

9. **Be patient with other members.**

Remember that there is more than one way of looking at a situation. Some members may need help in amplifying



their thoughts. Everyone, including the meeting leader, needs patience if he is going to do the job properly.

10. **Appreciate the other fellow's point of view.**

The leader and the meeting members should realize that *all* are human beings, members of a free society, and are entitled to their opinions.

11. **Avoid monopolizing the discussion.**

If a meeting leader or meeting member monopolizes a discussion, there is a tendency on the part of other members to refrain from expressing their opinions which may and could have just as much or more quality than those profusely showered on the group. The meeting leader should avoid "shutting anyone up" to use a vernacular term, but should diplomatically direct questions to others in the group. You cannot condemn the "monopolizer" because he is a definite contributor as long as he doesn't "run away with the ball." He can be a help, and he can be a hindrance. The meeting leader will have to be the judge.

12. **Assist in reaching conclusions.**

To avoid the condition of the meeting degenerating into an ordinary "bull session," the meeting leader should summarize and reach a systematized acceptability of what has been discussed. He will be pleasantly surprised by the group's reaction when the different phases of the material are summarized.

13. **Be a good sport when the discussion goes against you.**

There are differences of opinion on almost every subject, no matter what it may be. It is a good idea to remember that "a man convinced against his will is of the same opinion still." Personal animosity is not capable of adequately solving this problem.

14. **Be prompt and regular in attendance.**

Members who are to attend a particular meeting should be aware of the *time* and *place* of the meeting and plan to get to it on time.

Meetings should begin and stop on time. It is a waste of valuable time to brief a late member on what has been already accomplished.

These rules, properly presented and discussed, will encourage good, healthy group discussion.

### Techniques for the Leader

There are certain techniques which will help a meeting leader do a better job. They can be broken down into nine basic rules as follows:

1. **Face Your Audience** means just about what it says. If you face your audience, the other members of the group will be better able to hear you. It creates a friendly impression that you are addressing each person individually. It also helps the members observe your facial expressions, and as a result they are in a better position to receive your ideas.

2. **Control Your Audience** means that you, as a meeting leader, should have a pleasant but firm attitude while you are conducting the meeting. If the

proper interest is to be maintained on the various subjects of the meeting, control is necessary. A meeting leader can "control" by showing a spirit of enthusiasm, and seeing to it that every member participates.

The meeting leader should ask questions of each member. Such participation will represent the thinking of the whole group instead of segments of it.

3. **Regulate Your Volume** has to do with how you pitch your voice to the group. If you have a tendency to speak loudly, tone down the volume a little as it can irritate your listeners.

On the other hand, if you speak too low, no one can hear you and that is even more exasperating. In this case, speak up so people can hear you.

4. **Watch Your Tempo** is a rule which if observed will help meetings become more interesting. If the tempo is too fast, there is a possibility of losing the group because it hasn't grasped the full meaning of what was said.

If a person talks too slow, the presentation becomes monotonous, and it may tend to put at least some of the conferees to sleep. Vary the tempo; determine where to emphasize and where to move at a faster rate. This rule applies in much the same way that plays, operas, and movies have variances in tempo to make them more interesting and less drawn out.

5. **Don't Forget to Pause** is an important rule of group discussion. The

fundamental idea here is that when you ask a question, you must remember that the members of the group have never heard this specific question before. It is new to them. You must give the conferees time to think about the problem and organize their thoughts. It is not unusual for good leaders to pause as much as 30 seconds or more before allowing a group member to answer.

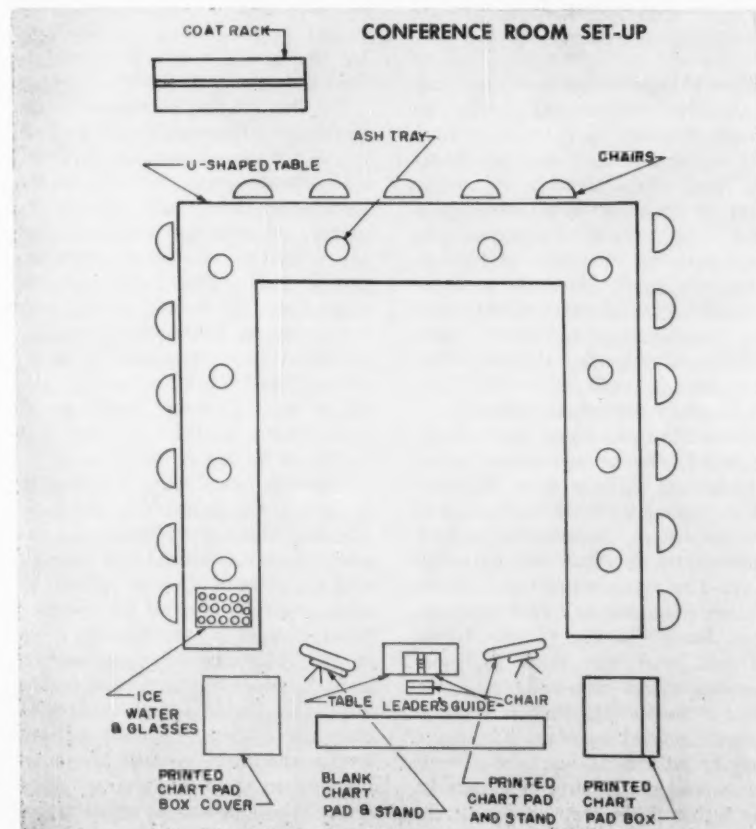
6. **Speak Plainly and Clearly** is a rule which speaks for itself. Enunciate clearly and use words that can be understood by all.

7. **Have Poise** to the meeting leader means a pleasant, relaxed manner no matter what the occasion, and no matter what is said by a member of the group. Poise is reflected in a relaxed and comfortable feeling, free of any fidgeting, unnatural rigidity, or unattractive body movements.

8. **Watch Your Mannerisms** is a rule which the meeting leader needs to heed. Nervous movements such as fumbling with a watch, sticking out the tongue, flexing the hands, pulling the nose should be avoided.

A meeting room setup similar to Figure 3 is recommended. In this physical setup, no one obstructs the view of another person.

The fundamentals have been covered. The rest is up to you. If you practice the basic rules set fourth in this article, the time will come when you will consider leading a meeting one of life's pleasant experiences. ■



# The Principle of Equalization

## VICTOR W. DOHERTY

*Mr. Doherty is director of research for the Portland, Ore., public schools.*

Most board members at one time or another have been exposed to the principle of equalizing local taxes through a state school fund. Except for school district reorganization, probably no subject is viewed with so much emotion and so little understanding. As in the case of district reorganization, a board member will normally be "for" or "against" equalization, but seldom will he accept as wholly rational a compromise attitude toward it. Despite this, compromise equalization formulas do exist in most states, and are arrived at, as a rule, after prolonged and heated legislative controversy.

### What Is Equalization?

Briefly, equalization funds are funds collected by the state through its taxing authority and distributed to local school districts in such a way as to make more nearly equal the local property tax required to support a specified level of expenditure. To put it simply, school districts with low property valuation get more equalization funds than those with high property valuation, other things being equal.

Usually equalization funds are distributed to make equal the taxes required locally to support a level of expenditure such as \$300 per pupil in average daily attendance or \$1.50 per total days' membership. Such an expenditure level is variously described as a "basic program," "foundation program" or "minimum support level." In theory this is the support level for which the state assumes direct responsibility — the level of support the state believes all districts should maintain. The figure may be set low (to represent a minimum level of support) or it may be set higher if the state wishes to use

this means to encourage "adequate" rather than "minimum" support of schools by local districts.

### Source of Conflict Over Equalization

Since money is a prized commodity in any school district, it is natural that any theory of distribution of state money that is subject to differences in interpretation should become a source of conflict. In the case of equalization funds, this conflict is intensified by lack of evidence that the quality of education is improved by equalization, by the absence of accepted criteria for determining the proper amount of equalization, and by the many factors that tend to invalidate the basic theory.

On the question of improving the quality of education, it appears logical to give special assistance to financially weak school districts on the assumption that it will improve the quality of education provided. But this is hard to prove. Many examples can be cited of financially weak districts that support good schools, and, conversely, of financially strong districts that support schools in an indifferent fashion. It is usually concluded that a community will support good schools whatever the cost if it desires to do so.

From the standpoint of equity to taxpayers, the principle of equalization has many shortcomings. To examine these it is helpful first to recall that the purpose of equalization is to make more nearly equal the property taxes of local school districts. This is usually accomplished through a state distribution formula that makes it possible for all school districts to maintain a designated expenditure level at the same, or nearly the same, tax rate on the true value of property. This approach to equalization

is outwardly appealing and logical, but in application it is complicated and deceptive.

### Equity Through Equalization

*The assessment of property.* In most states the assessment of property is still a local or county function. Thus property may be valued at  $\frac{1}{4}$ ,  $\frac{1}{3}$ , or  $\frac{2}{3}$  of its real value, depending on the practice of the local assessor. States that have no good way of converting assessed values to market or "true" values have the least defensible grounds for equalizing local tax rates.

The validity of equalizing school taxes rests squarely on the comparability of property values from school district to school district. It is a proven fact that comparability does not exist where assessed values are concerned, and, in fact, that wide differences in assessment rates exist both within an assessor's area of jurisdiction and between different assessors' areas of jurisdiction.

If a substantial program of equalization is to be justified in any state, it should be predicated on one of two conditions:

- a) state assessment of all classes of property to insure uniformity, or
- b) an extensive, scientific continuing sampling procedure to determine the relationship between assessed and true value in every school district in the state.

It is doubtful if a handful of states meet either of these conditions.

*Total property tax load.* School administrators sometimes tend to regard their financial problems as if they exist in isolation from the financial obligations of the community as a whole. This helps explain the wide acceptance of the theory of school tax equalization among educators.

This position disregards the radical differences in property taxes for other purposes that exist among communities. Applying the principle of equalizing school taxes under these conditions frequently results in a school district with a high total tax burden contributing to the support of one with a lower total tax load.

A case in point is the typical city school district. Cities normally embrace a concentration of property values which makes it possible to support schools at a low rate of taxation. But city, county, and special taxing authorities may impose additional burdens that raise the total tax rate well above the areas that receive school equalization funds. The point overlooked in such cases is that a concentration of property values is frequently accompanied by a concentration of necessary governmental services, and that the taxpayer's ability to pay is related more directly to this total tax rate than to the overall property values of the city.

The point is sometimes raised that the city dweller has more services and should be willing to pay the added price of these services; but the issue in tax equalization is not *willingness* to pay but rather *ability* to pay for the support of schools.

*Equalizing a fixed expenditure level.* Also to be considered, if tax equity is a goal, is the common practice of equalizing a fixed level of expenditure (the foundation program, basic program, minimum support level). Some rural districts, keeping necessarily small schools, have much higher per-pupil costs than other schools. This fact is recognized in many states where modifications are made in the basic or foundation program to increase the amount of state funds received. Thus the state may equalize a \$600 ADA program for a small school while equalizing only \$300 per ADA in larger schools.

In other words, the small school would be able to spend twice as much per pupil while having the same local property tax rate. Some states make inadequate allowances for differences in cost, thereby invalidating the theoretical framework of equalization as it applies to rural areas. Sometimes this is done purposely to encourage district reorganization. Another method used to take care of differences in school size is to equalize the cost of classroom units or

teachers actually employed rather than an assumed per-pupil cost. This enables a school with a small pupil-teacher ratio and a higher per-pupil cost to receive more equalization funds, if eligible.

But putting aside the matter of small districts, there are many other factors that affect the level of expenditure of school districts. The number of experienced vs. nonexperienced teachers employed, the cost of fuel and utilities, and the living costs of the community are among these factors. To the extent that costs *necessarily* differ to achieve comparable educational quality, the concept of equalizing a *fixed support level* is invalid.

*Payments in lieu of taxes made to school districts or other taxing subdivisions.* It frequently occurs that school districts or other governmental subdivisions receive substantial sums of money in lieu of taxes from another governmental agency. One source of such funds is the Federal Government. In some states the per cent of land in federal ownership is substantial. A recent report of the NEA's Committee on Educational Finance shows that over 86 per cent of the land in Idaho is in federal ownership, and a great many states have from 30 to 60 per cent of their land in federal ownership.

Ordinarily some form of money in lieu of taxes is paid to local units of government to compensate them for the loss of revenues they would derive if these lands were in private ownership. Any state program of tax equalization that fails to take into account the extent to which such funds constitute the equivalent of property values in the units of government affected is introducing inequities into its program of equalization.

There are other matters that complicate and confuse the problem of equity in an equalization program, as, for example, the uneven erosion of property values by the exemption from taxation of certain types of property or by substituting another type of tax for a tax formerly levied against property. The matter of the relationship between property values and income is also important. School tax equalization assumes that a direct relationship exists between the value of property held and the income of the person holding the prop-

erty. Farmers especially object to this principle, pointing out that valuable farm land sometimes produces little income.

It is apparent that all of the conditions needed to achieve equity to the taxpayer cannot possibly be guaranteed by legislative enactments. The major premise on which equity of the idea rests, which is the comparability of assessed values or assessed values converted to "true" values, is known to be untrue in varying degrees in most states. The assessment of property is so firmly entrenched as a local or county function that efforts to make practices uniform are rewarded with little success.

Yet above all these objections stands the fact that differences, often great, do exist in the taxing ability of local districts which make it more difficult for residents of one district to finance schools than others.

How important is this fact? A few things appear certain. It is *not* important enough to divide school boards and administrators in a life-and-death struggle over state funds. It *is* important enough to warrant long-range and continuing study of ways to insure that equalization, and state aid as a whole, is working as an incentive to improve educational services rather than as a levelling, standardizing influence.

The foregoing discussion makes it clear that legitimate arguments for more, less, or different kinds of equalization may be raised by persons representing rural districts, city districts, districts receiving or not receiving money in lieu of taxes, districts having high costs of operation, districts where living costs are high—in short, almost any kind of district. This is the contradictory, conflict-provoking character of equalization. It is a simple, attractive theory that unleashes a Pandora's box of problems when applied.

School board members and administrators should keep an emotionally balanced perspective when considering the equalization problem. It has less to do with improving education than reorganization, *level* of state support, or informed and capable management of the local school district. On these matters there is more agreement among school board members and school administrators, and a sounder basis for co-operative, productive work. ■



# Educational Facilities For a Growing Community

## The School Plant

One of the more complex problems confronting school planners is that of whether to expand an existing school or build a new plant. While the solution to this problem involves factors varying with individual situations, there are certain general guides which can be utilized in specific cases to indicate the wiser choice. And the SCHOOL PLANT section this month features a brief and basic checklist of these guidelines.

In addition, the following pages analyze (1) how a high school was designed to gear into the over-all school planning of a growing community; (2) how a really challenging problem in site adaptation was met with an elementary school addition; and (3) a "Special Report" on some of the most important elements in planning the modern high school.

And we hope you'll have an opportunity to review articles on such areas of school plant planning and maintenance as how to evaluate movable school equipment and furniture, where to use the vacuum cleaner in today's school to save maintenance costs, etc.

*A school built to care for present needs and future enrollments is the Harborfields High School in Greenlawn, L. I., N. Y. Designers of the plant were Ketchum & Sharp, New York architects.*

A careful look into the future, thoughtful planning and close co-operation of school authorities and the architects are keys to excellent educational facilities for growing communities.

That is the experience in Greenlawn, L. I., N. Y., where the third step in a building program was realized with the completion of the Harborfields High School for Central School District No. 6, headed by Thomas J. Lahey, district principal. The school was planned by the architectural firm of Ketchum and Sharp, New York City.

To care for needs at that time and to prepare for the future, the community in the first stage constructed a combined elementary and junior high school. In the second, a classroom wing was added to this structure, and it was converted to junior high use.

The third stage called for the construction of the high school, and a site adjoining the junior high was selected. The juxtapositioning of the two schools had definite advantages, for the location is central and the two could be joined by a covered enclosed walk, permitting use of the senior high auditorium and cafeteria by both student bodies.

The site is also large enough for the fourth step, the addition of another classroom wing to each school. The expanded facilities of the junior high will then provide the link to the jointly used spaces.

The basic architectural concept was to create a building which would be pleasant to work and study in, and in which the functional requirements of the interior spaces are used to advantage to give a different atmosphere and character to the individual rooms. Some look into landscaped courtyards, some are completely top lighted, such as the music room, and others are top lighted with a minimum of other lighting.

In carrying out this concept materials were carefully chosen to reduce maintenance costs. One cost reducing element was the elimination of ceiling finishes in many areas. Costs were kept down, but at the same time a beautiful and well functioning school was created.

Visitors to Harborfields High School are first of all struck by its unusual

cantilevered auditorium, which rises dramatically above the grounds. The form of the 710-seat building expresses its function, for it has a multi-planed rather than a flat ceiling, and the seats behind the main cross-over aisle are set in a stepped floor arrangement, balcony fashion, to provide ideal sight lines. The cantilevered portion follows this slope, and the open space beneath it serves as a covered walk in inclement weather.

The classroom wing houses twenty classrooms, including office, practice rooms and three science rooms. On the ground floor are grouped the administrative, health and guidance offices and connected to the building, the library. The two-story construction cost slightly more in proportion than one-story, according to Ketchum and Sharp, but it will have advantages when the 750-pupil school is expanded with another classroom wing. The plant will then accommodate 1500 students for which core facilities were planned.

The walk joining the school and the Taylor Avenue Junior High School leads directly to the large rectangular cafeteria, which is divided into senior and junior sections by a folding wood door. Opening off it are two small intimate courts finished with asphalt paving blocks for easy upkeep and provided with several planting beds.

A third court opens off the library and classroom wing and has a perforated brick garden wall which screens it from the driveway. It is designed to control lighting and sound as well as the view. The courts serve as informal gathering places and are among the best-liked features of the school.

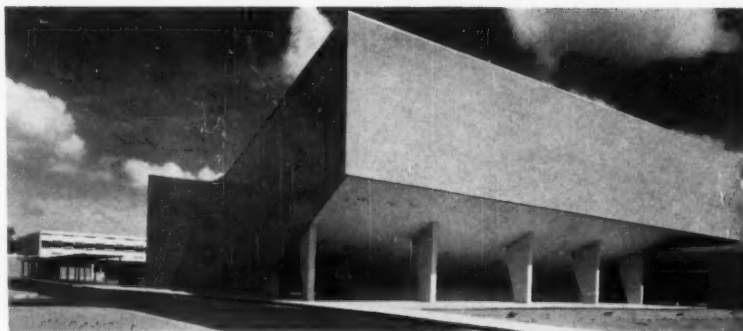
The artificial lighting in the classrooms of Harborfields High School has created much interest. In planning it, the architects wanted particularly to get away from that common problem, hot spots on ceilings. Fluorescent lighting tubes are suspended from exposed overhead beams in the rooms and the top of the fixture is left open, allowing light to spill onto the ceiling surface. Plastic eggcrate louvers at the bottom of the fixtures diffuse light over the classrooms.

The high ceilings of the shop wing resemble those of a light industrial type structure. Windows are kept to a mini-

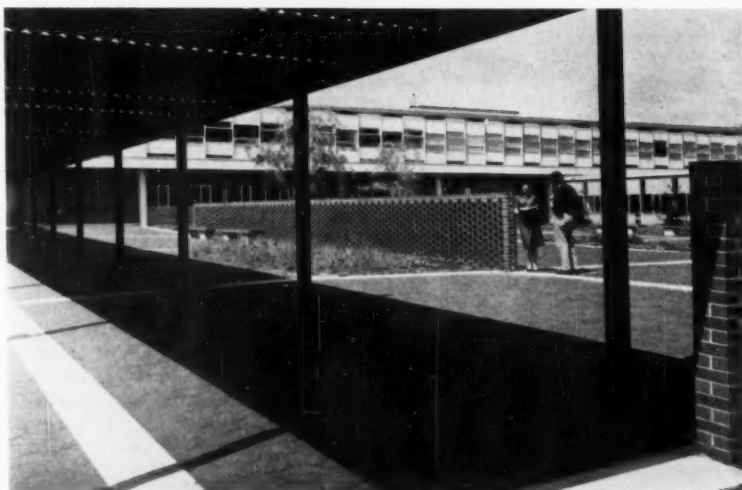


Color is important in giving Harborfields High School distinction. Red face brick, for instance, is used for the gymnasium, shop wing and cafeteria, balancing with the blue-glazed brick employed for the auditorium. The classroom wing has curtain walls of porcelain enamel panels in light yellow and tinted windows which are glare reducing and heat resistant. The panels of the library and the home making suite are gray.

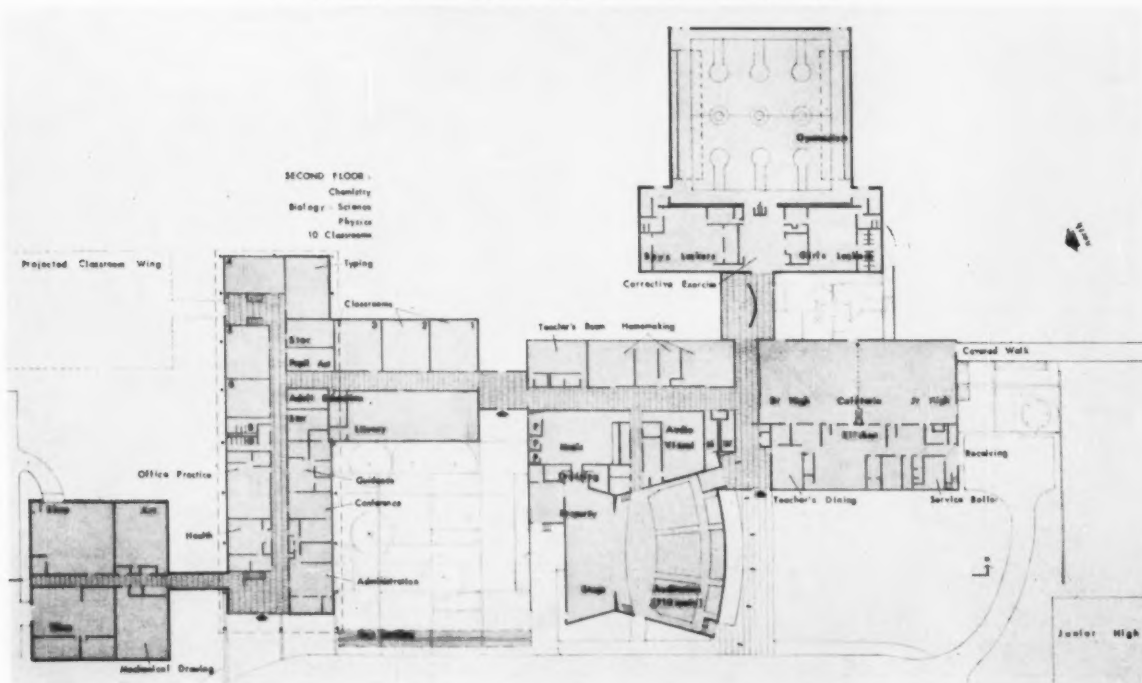
The curriculum at Harborfields' High School anticipates the trend toward more college preparatory students, with increased emphasis on the sciences. At the same time, facilities have been provided for shops, homemaking, and business courses. This look into the future by local groups and the school administration benefited both the students and the architects, who were better able to plan the school, to integrate it with the existing junior high and to provide for expansion of both schools. ■



Above is a rear view of the unusual auditorium designed for the Harborfields High School by architects Ketchum and Sharp of New York City. A view of one of the school's interior courts is shown below.



*Floor plan of the Harborfields High School in Greenlawn, L. I., N. Y.*



# A Problem in Site Adaptation

**JOHN A. WHITEHEAD**

*Mr. Whitehead is superintendent of schools, Union Free School District No. 2, Eastchester, N. Y.*

The problem of adapting the school building to the site was a serious matter to the Eastchester, N. Y., District No. 2 School Board when the school's construction referendum for \$940,000 was passed by the voters. The proposal was to add twelve rooms and special purpose areas to the recently completed eight-room William E. Cottle Elementary School. The proposed site was only 125-foot deep along most of its length.

In addition to the shallowness in lot length, there was a stone ledge close under the surface in some areas and thirty feet of mud beneath others. As if this were not enough, the narrow section was on a hill for nearly one-half its length.

This hill presented the most difficult aesthetic problem to architect William

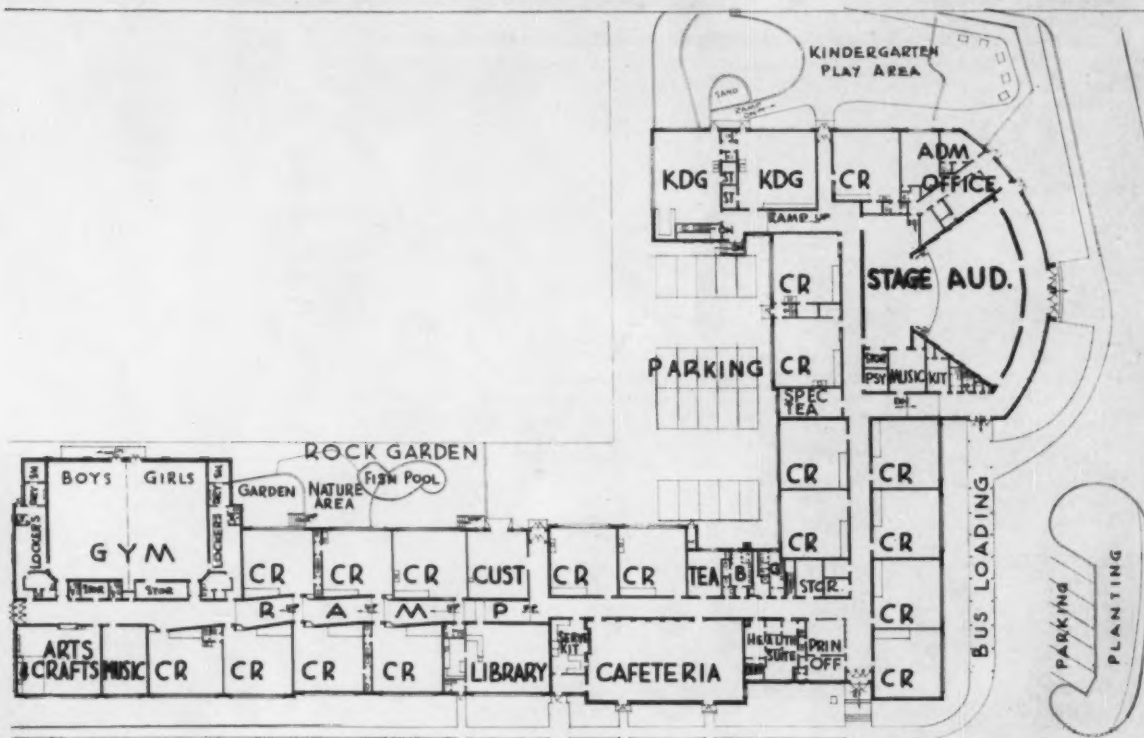
R. Shirely as the building is located in a fine Westchester residential area. Since the proper placement would bring the building to within seven feet of the sidewalk, any construction of more than a single story would be incongruous and out of the question. The ledge prevented any solution that would require excavation. The final solution was a split level plan, with the building design following the contour of the land.

Placement of units, too, required considerable study. The depth of the lot precluded the placement of common use facilities such as the library, reading and speech rooms and the psychologist's office in one centrally located area. These were eventually placed in the new wings built close to the original building. The auditorium and gymnasium

were widely separated, one in each wing, to prevent conflict of noise and parking areas during evening use.

The kindergarten and first grades fit nicely into the auditorium wing with an enclosed southern exposure playground. Grades three and four along with the music room, arts and crafts room, the library, and the gymnasium were grouped in the other wing leaving sufficient space for a third and fourth grade playground and a hard surface playground area for all. The adjoining street, too, is closed to traffic during the day and utilized as a hard surface play area. The intermediate grades have a two-acre playfield beyond the street which meets their playground problem nicely.

Pupils and teachers enjoy completely equipped classrooms, a weekly session





in the library guided by a full-time librarian, and, play areas which give all ages an equal opportunity to use equipment. The divided gymnasium removes the physical education program from dependence on weather conditions while the special purpose rooms, added at small cost, enable every teacher and class to work in an environment best suited to the activity with a minimum of the friction that comes from shared facilities and crowded conditions.

By utilizing all outdoor space, landscape architect Vincent C. Cerasi found sufficient room for faculty parking, a delivery entrance, and a nature area complete with fish pool and vegetable and rock gardens. He also included thirty-two different shrubs and trees for educational as well as aesthetic value.

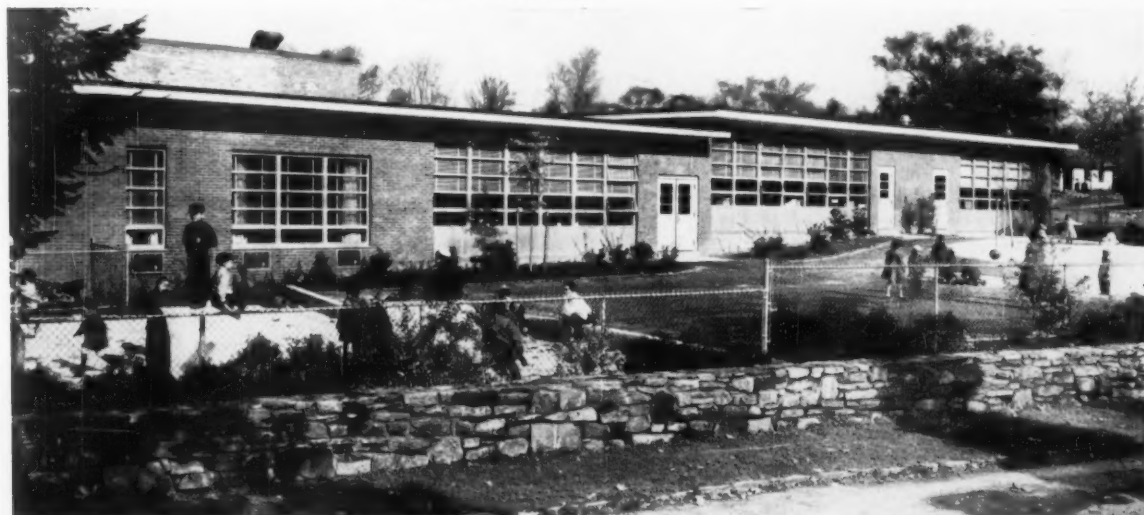
Although the district's schools were always exceptionally well supported and well staffed, the "lift" given to the program by the new plant has impressed teachers, parents, and pupils with the importance of having good buildings as well as good teachers. ■



*Above: The split level plan of the William E. Cottle School enables it to follow the contours of the land. Inside the corridor the monotony of the ramp is relieved by irregular wall design and corner displays cases for each classroom. Below: The school auditorium is the favorite little theater in town. Its semi-circular design keeps each of the 290 seats within 36 feet of the 900 square-foot stage. It has complete theater-type lighting while careful design and upholstered seats assure excellent acoustics even for rehearsals.*



*Kindergarteners and first graders have their own play area with some hard surface area and a large sandbox.*



# To Expand or to Build Anew

**SAMUEL PAUL**

*A well-known school architect discusses a few methods by which the local school board can decide what direction the school building program should take.*



*Mr. Paul is a partner in the firm of Samuel Paul and Seymour Jarmul, New York City architects.*

**PROBLEM:** *A local school board has \$500,000 in hand. It also has an existing school building that is overcrowded. The board is anticipating that the population in the vicinity will increase for at least another three years. Then it might taper off. Does it use the money to build a new school building or to add to existing facilities?*

"To build and what to build" has been and still is one of the most pressing problems facing local school boards today. But now the problem has become enlarged by the question of what direction the building program is to take.

Working with the theoretical problem above, school officials must make their first decision between two alternatives. They can either (1) modernize the existing structure and build a new addition or (2) construct an entirely new building. Whichever course of action is followed, it should be taken only after the most scrutinizing examination of existing facilities.

## **Check List of Building Factors**

The following items are presented as major points for consideration in the examination of existing school facilities. They can serve only as a guide in helping to spend construction dollars wisely. The final decision of whether to build a new school building or work within the framework of the existing structure should be made only after consultation with the architect whose judgment and interpretation can be of valuable aid. (NOTE: The following points should be considered in the light of local zoning regulations.)

ITEM	CHECK FOR:
1. Heating system	Sufficient heat during the coldest days
2. Ventilation	Adequate air changes in the classrooms



- |   |   |
|---|---|
| 3. Exterior walls   | Cracks, leaks, and missing parts  |
| 4. Foundation   | Cracks, leaks, and termites   |
| 5. Floors   | Squeaks, cracks, and settling   |
| 6. Windows  | Rotting and rusting   |
| 7. Interior Walls   | Cracks  |
| 8. Roof   | Leaks and flashing  |
| 9. Electrical system  | Usually outdated and requires new lighting, bell systems, etc.  |
| 10. Plumbing  | Corrosion, leaks, and check joints  |
| 11. Lighting  | Usually outdated and requires replacement   |
| 12. Corridors   | Are they wide enough?   |
| 13. Service facilities (storage, etc.)  | Is there enough space?  |
| 14. Toilet space  | Number of water closets and urinals in relation to the number of pupils   |
| 15. Possible expansion of administrative facilities                           | Teachers' rooms, guidance rooms, and first-aid space  |
| 16. Functional operation of the building (traffic movement, layout, etc.)     | Ease of getting from one classroom to another. Ease of getting from all classrooms to gymnasium, auditorium, etc. |
| 17. Size and condition of site  | Provision for recreational facilities and the physical characteristics of the property                            |
| 18. Fire and safety factors   | Fire rating of the building, wide stairs, ample doors, means of egress, fire stops                                |
| 19. Possible increase and/or creation of a cafeteria, gymnasium or auditorium | General characteristics of the building   |
| 20. Possible extension and/or creation of space for extracurricular activity  | General characteristics of the building.  |

The architect can be of valuable assistance in going over the check list. A complete and thorough analysis of existing facilities is the first step. This should be undertaken to determine (1) whether the old building is worth saving and (2) if so, whether it can be altered or modernized with a new addition to function efficiently for the district's needs? The potential of the building to meet future needs must also be determined.

In addition to analyzing and reviewing the detailed portions of the checklist, the architect should be able to see the potentials of modernizing the existing building and building a new addition. That is to say, he should consider not only the functioning of such specific items as the heating plant, ventilating system, etc., *at the moment*, but envision how efficiently and economically they will function *after* renovation is completed.

If the old building is not worth saving, the next step is to determine whether to build a new school on the site of the old one or to look for a new site. If a new site is needed, the problems of (1) location, (2) cost, and (3) physical aspects of the land will have to be considered. It is at this point that the budget will have its greatest influence.

Some of the major points to be considered by any school board before a decision of this sort is reached should be:

1. The size of the land available and the type of school desired. If a new school is to be built on the site of the old one, initial demolition costs of the existing building will take a sizable bite out of the construction budget. If the building is a new junior or senior high school, then the necessary adjacent recreational facilities will have to be taken into account. Playing fields, tennis courts, etc., will occupy a major portion of the site.

2. If an addition and modernization job would be best for all purposes, it must be kept in mind that not only classrooms will be needed, but many new administrative and service facilities as well. Teachers' lounges, first aid rooms, guidance suite, and office space are all needed for a complete school plant.

3. If the school district encounters an increased enrollment of handicapped and/or retarded children, it has a special problem. Remedial facilities can often be incorporated in the modernization of an old building without too much difficulty. However, in the case of the handicapped, it is usually more advantageous to accommodate these children in a special section of a new building that would be especially designed for them.

### Remodeling Dollar Stretches Far

One major argument for modernizing existing facilities and constructing a new addition is that a district can usually get more usable square feet for its construction dollar than it can in a new building. At the same time, though, school officials may have to abandon the ideal solution for the certain practical compromises that will be necessary.

There is also the possibility that if the addition and modernization is completed without a valid estimate of future needs, the district may have to face the same problems in another year or two.

The arguments for a new building are, of course, impressive: It will be a complete, up-to-date structure that will not only function efficiently now, but can be easily utilized for expansion in the future. New materials can be applied to their best advantages; soundproofing, vinyl floor and wall coverings, etc. The building could be designed to provide maximum recreation and parking area on the school site and to minimize the structure's maintenance. But this is an expensive undertaking, and the chances are the new building would cost more than the budget allows.

### Architect Should Set the Pace

With regard to the theoretical building figure of \$500,000, any school board with only this amount should seriously consider an addition and modernization job rather than a new building. It is extremely unlikely that a district could duplicate the number of rooms in an old building in any new building for this price.

However, this is an individualized question with every school district and it depends on the responsible judgment of the architect to set the pace. This judgment can only be formed by a very careful analysis of the findings revealed after applying the "Check List of Building Factors" to your building. — In any case, all needed school facilities should be provided regardless of whether school officials decide to expand or build anew. ■

# How to Plan A High School

**ROBERT W. STICKLE**

*Mr. Stickle is with the firm of Stickle and Associates, Architects and Engineers of Cleveland, Ohio.*

*School boards and administrators who wish to conduct a successful high school building program usually have a clear, concise statement as to what they wish to obtain for students and community.*

The building of a high school starts with the educational planning, and it is axiomatic that the result obtained cannot possibly be better than the plans. It is not really the architect who plans; it is those in charge of the building program. Actually, the architect guides these people to a realization of what they wish to obtain.

To begin with, any successful high school building program demands that the administrators make a clear concise statement of what they wish to obtain. Such a statement should include at least the following

1. What size?
2. Where?
3. Type (economy or deluxe)?
4. Future expansion contemplated? (If so, to what extent?)
5. Maintenance factor

## **Size Related to Use of Facilities**

The first item to consider is *size*. Surprisingly, it is often that an archi-

tect is told to design a high school of so and so many classrooms or one that will accommodate thus and thus many students. This is poor planning unless these size requirements are modified with statements relative to the subjects to be taught, the methods of teaching, the system of scheduling classes, the student popularity of certain courses, possible community adult use of certain facilities, etc. It is essential, therefore, at the start of planning to have definite size requirements. This should be based on actual figures eliminating as much guesswork as possible.

The *where* a high school is going to be built is equally important. The property on which the school is built has a great deal to do with what it will cost. It also has a direct bearing on how efficient the planning will be, as well as the usefulness of the building. If there is a choice of sites, it is advisable to include the architect in the committee charged with site

selection. He can readily see many potential undesirable situations and will be able to advise on the relative construction costs of the sites considered. Some things to keep in mind in site selection are:

- A. Is there easy access from all areas served?
- B. Is it hilly or level? (Both can be expensive sites for construction.) Hilly sites necessitate stepped footings, various floor levels, etc. while drainage problems often occur in dead level sites. Generally, an almost level site is most desirable from nearly all standpoints.
- C. What are the subsoil conditions? (Poor soil? Poor drainage?)
- D. Are water, electricity, gas, storm and sanitary sewer facilities available? (The construction of sewerage and water facilities can often cost more than the property itself.)
- E. Could neighboring buildings present undesirable situations?

#### Common Sense Needed

There is a great deal of controversy today regarding the type of building a school district should build — and well there should be! It

is recognized that one cannot dispute tastes and no architect should do so. What will be discussed here has nothing to do with tastes. It has to do with common sense. Many times frivolously minded administrators and architects and school board members have toyed with or insisted on the idea of a circular school, an X-shaped school, a pentagon-shaped school, a windowless school, an all glass school, and all wood school, an all concrete school, an all steel school, an all aluminum school, pink schools, blue schools, orchid schools, ad nauseam, and the results of this thinking are strewn around the countryside as monumental freaks to discredit from here on forward the abilities of the postwar generation to handle its school building problem without hysteria and in complete absence of psychopathic reasoning. However, it is worthwhile to observe that there are notable exceptions.

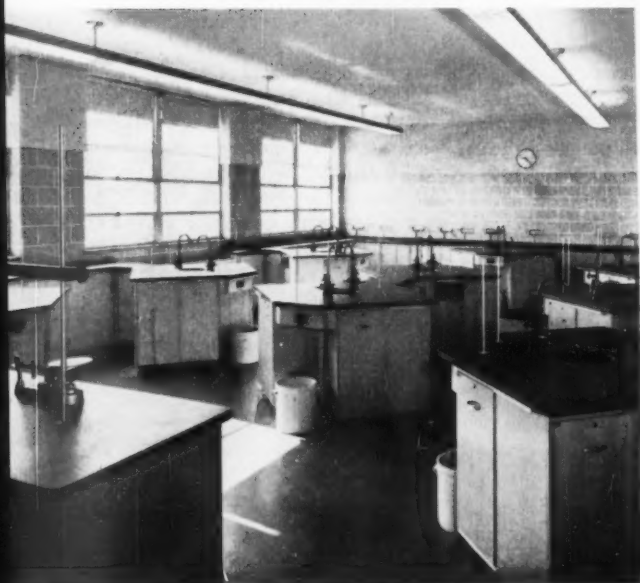
Regrettably, some of those entrusted to plan America's schools have been encouraged in these silly ideas or even led into them by architects whose competency or motives can be seriously questioned. Much of this is accomplished under the catch phrase of "contemporary design." All

design is "contemporary" if it is done today. Do not accept designs and ideas which do not seem sensible just because they are labelled "contemporary" and non-acceptance infers that you are old fashioned.

#### Startling Buildings Not Wanted

Who is to blame? Can all this be prevented? How? These are perplexing questions to be sure, but there is an answer and it goes back to the old common sense precept — when in doubt, don't. Administrators and architects should not be allowed to go on with these startling schemes and buildings. School officials should beware of those who are going to build them a "showplace" or a "model school" or who are embarking on "radical departure from conventional methods." They must watch out for the starry-eyed individuals who dominate the school board and who are going to "progress with new and different theories." If they neglect to question these people, it will cost the taxpayers money, and what is even worse, endanger the proper education of the students. Here are a few practical things to watch, for constant vigilance is necessary for good results.

*Architect Stickle recommends soft materials such as composition tile in low traffic areas such as classrooms and offices. The two rooms below also show other economy features such as the elimination of expensive wall coverings where not needed, gadgets in the form of excessive amounts of cabinet work in classrooms, and vast areas of glass where not definitely needed.*





*The two gymnasiums pictured above have folding bleachers that telescope back into the wall. Spanned by large steel beams, the gymnasiums have tile and maple floors. The walls are painted masonry block with structural glazed tile wainscot.*

- A. Excessively large lobbies
- B. Large exterior porches
- C. Vast areas of glass where not definitely needed
- D. Sandwich type or curtain wall — one or two floor construction
- E. Reinforced concrete or steel frame — one or two floor construction
- F. Gadgets in the form of excessive amounts of cabinet work in classrooms
- G. Expensive exterior architectural or "appearance" features (Simplicity is still the best taste.)
- H. Expensive wall coverings where not needed
- I. Unnecessary outdoor construction, such as large planting areas, masonry walls, covered walks, etc.
- J. Oddly shaped rooms and areas
- K. "Built-in" furniture
- L. Built-in so-called "art features"

#### **Planning for Future Enrollments**

Rarely today can it be clearly seen how many students will be occupying the building ten or fifteen years hence. It would not be good sense to ignore growth potential and build a high school to accommodate the present enrollment without a thought

to the future numbers. On the other hand, it is not good economics to build a structure for future enrollment which may never develop or which, if it does develop, permits classroom facilities to stand vacant for several years before they are used.

What then is the answer to this problem? There are several solutions to the dilemma. If there is vacant ground around the school site for the future construction of homes and, if the area shows growth potential, i.e., favorable sites for industry to move in, good rail and/or super highway transportation, good labor supply, good climate, etc., school officials should definitely plan for expansion. There are certain elements in the plan which cannot be easily expanded later. Some of them are: gymnasium, auditorium and cafeteria. These should be made large enough to withstand expanding numbers of students without future additions, and incidentally, do not cost a great deal more to make larger in the first instance. Also, the boiler room and sewers, gas and electric and water lines should be sized large enough to

take care of the future. The boiler itself does not need to be oversize because another parallel boiler can later be installed without difficulty, but the boiler flue should be large enough to take the extra boiler. Classrooms are easy to add later. However, the orderly addition of them should be planned at the outset. Sometimes it is definitely known that a certain increase will occur within a definite short term period. In such a case, it is often wise to construct the shell of the classrooms which will be needed and finish the interiors as they become needed. This maneuver saves interest by keeping borrowed funds to a minimum. It does not make sense to borrow money to build something you do not need for several years.

#### **Maintenance Factor Important**

Once the high school is built it takes a lot of money to keep it going. This maintenance money comes under three headings:

- A. Payment of interest and principal on debt
- B. Administrative and teachers' salaries



C. Cost of operating the building  
Once again good planning will pay enormous dividends. Payment of interest and principal on funded debt is kept low if great care is exercised in the planning according to the fundamentals heretofore set forth.

Administrative and teachers' salaries must be kept high to attract good talent, otherwise the finest "show-place" building is but a hollow shell. If the money spent on building gadgets and gimmicks were used to pay good salaries, there would be a proper order of things and the tone of the whole educational program would be improved.

#### Do Without Gadgets or Gimmicks

Does that mean that cheap, high maintenance schools must be built to keep teachers salaries high? No, school districts must build sensibly planned, well considered, gadget and gimmick free (and this includes especially architectural gadgets and gimmicks), low maintenance structures

to accomplish this end. Without this approach the higher salaries can never be realized.

In considering what constitutes a low maintenance building, here are some things to look for:

1. Sufficient insulation (Keeps down fuel bills.)
2. Elimination of exterior gutters and roof water conductors (a source of bid maintenance)
3. Use of nonferrous metals for windows (Periodic painting is very costly, yet aluminum windows cost the same or less than steel or wood.)
4. Weatherstripping of windows
5. Elimination of as much exterior wood as possible (expensive painting and eventual replacement)
6. Hard flooring surfaces (tile-terrazzo) in corridors and other high traffic areas and soft materials (composition tile) in low traffic areas (classrooms, offices)
7. Use of automatic fuels, low pres-

sure boiler, etc., to reduce custodial services (Labor is expensive and amounts to a great deal over a period of years.)

8. Use of hard material wainscots in corridors, toilet rooms and elsewhere in areas where mechanical damage or soiling by students is likely
9. Use of steel door frames, hard factory surfaced doors and ball bearing hinges to eliminate a source of expensive maintenance for years to come
10. Use of forced hot water heating system (While initially it is slightly more costly, it is much lower in maintenance and more comfortable than other systems.)

Adherence to the foregoing basic principles has produced excellent results for many clients. The proper intelligent application of these principles can be of great aid to high school planners in obtaining a sensible low cost, low maintenance school. ■

*The floor of the corridor at the right is terrazzo tile; the ceiling and top section of the walls, acoustical plaster. The remainder of the walls are structural glazed tile with a 6-inch terrazzo base. The lockers are built-in individual wall lockers; the lighting is fluorescent strip. The cafeteria below has vinyl asbestos floors, acoustical tile ceiling, painted block and ceramic tile walls, and columns of painted block and Naugahyde padded wainscott. A folding partition divides the room. The lighting is indirect incandescent.*



# The Vacuum Cleaner In School Maintenance

**DAVE E. SMALLEY**

*Mr. Smalley is technical editor of Better Building Maintenance.*

Suction cleaning, more popularly known as vacuum cleaning, is generally considered to be the most effective method for removing dust and fine litter from any building, but it is especially adapted for use in schools.

Not only is the dust and grit carried in from the playground and excessive litter a greater problem in the schools, but good sanitation is as essential as in a hospital. Bacteria-laden dust is sucked into today's vacuum machines and filtered out before the air is exhausted. To make this feature even more effective, germicidal filters may also be used.

Suction cleaning is the only method for the thorough removal of dust from cracks, corners, and around the fixed rests of furniture. Such locations cannot be adequately cleaned with a broom or floor brush. Even where space permits sweeping or mopping, a portion of the dust rises in the air during the cleaning and settles back again on the floor and furniture. With a good vacuum cleaner the dust is completely trapped and disposed of in a safe and convenient manner.

But the removal of dust and other dry matter is not the only function of a modern, well-built vacuum cleaner. It is invaluable for picking up water, either scrub water or flood water. As for the properly constructed machine for schools, a heavy-duty vacuum cleaner is best.

## **Heavy-Duty Cleaner Best**

This machine is often referred to as the "industrial vacuum cleaner" or "commercial" type and is espe-

cially made to handle chores in a large building. Instead of the limited capacity and suction power of the familiar household vacuum cleaner, the heavy-duty machine consists of a tank on casters or wheels. It has a high-speed motor and suction fan installed, usually on top, but in some cases on the side or bottom.

There are two different types of filter machines. One is the internal type which has the filter near the top of the tank, located just below the suction fan; the other, the exterior type, has a filter which consists of a large fabric bag attached outside the tank and to the exhaust. The machine with the internal filter is relatively quiet in operation, but the filter must be cleaned oftener. The machine with the external filter bag is quite noisy and is generally used in locations where noise is not objectionable. Its chief advantage is the greater capacity of its filter bag.

In operation, the heavier particles, drawn in by the suction, drop into the tank and only the fine dust is trapped by the filter. This feature is what makes the heavy-duty vacuum cleaner ideal for extensive cleaning and is the principal difference between it and the household machine, the total capacity of which is limited to a filter bag.

The tank may be cylindrical, as most of them are, square, or rectangular. The average dirt capacity is about ten gallons in a 15-gallon tank. The tanks may be of enameled steel, copper, brass or stainless steel. Although the latter three cost more, they are rustproof and should last a lifetime.

Preferably, the tank should be equipped with one or two swivel casters at the front and two large wheels and a push cart handle at the back for easy maneuverability.

While most heavy-duty machines employ a reinforced, noncollapsible rubber (or neoprene for oils) lined hose to which the functioning tool is attached, models are now available with a long floor tool connected directly to the tank. This makes it possible to push the machine along the floor, picking up the accumulation as it proceeds, limited only by the length of the electric cable. The attached floor tool can be an advantage when cleaning open spaces, but it is not feasible for close quarters. On certain machines, however, the long floor tool and hose are interchangeable.

## **Special Attachments Available**

There is scarcely a cleaning function about the school building which cannot be done faster and better with a heavy-duty vacuum cleaner. It has special attachments for various purposes. For cleaning floors, walls, etc., a four-foot aluminum handle known as a wand is attached to the end of the hose. The proper attachment for the job is then attached to the end of the wand. To clean floors, an aluminum tool or nozzle which measures about 10 or 12 in. in length with an orifice about  $\frac{1}{2}$  in. wide running the length of the tool is used. A felt or fiber shoe is attached to the nozzle to avoid the scraping action of the metal against the hard surface, such as concrete or terrazzo, on some floors.

For picking up water, a rubber squeegee is attached to each side of the floor tool, collecting the water under the orifice. This makes the machine ideal for picking up scrub water, and especially effective where the operator follows immediately behind the scrubbing machine, sucking the water out of cracks, corners, etc. Flood water, either from a broken or stopped-up drain in the washroom or from a heavy rainstorm, is quickly and effectively picked up in this manner, too.

For cleaning walls and ceilings, a brush is fitted to the floor tool and metal "high-up" tubes are used to reach high places. Each of these tubes is about 5 ft. in length and can be attached in three sections, permitting the average man to reach about 17 ft. above the floor. A swivel joint is used on the upper end of the tube so the tool may be turned for cleaning the ceiling. Shelves, ledges, and overhead pipes may also be cleaned in this manner. Special brush attach-

ments, curved to fit, are available for cleaning overhead pipes.

With the proper tool attached to the high-up tube or wand, drapes and Venetian blinds can be easily cleaned two or three times a week. If done often, it is a quick and easy chore and prevents accumulation which later makes a more thorough and difficult cleaning necessary. What is usually called an upholstery tool, a metal nozzle about 6 in. long with a narrow orifice, is used for cleaning drapes. A brush attached to the nozzle increases efficiency. A round, rubber-set brush with long soft bristles is used for cleaning Venetian blinds. If the blinds are vacuum cleaned regularly, before moisture in the air has made the dust adhere, removing the blinds for washing is seldom necessary.

The usual light fixtures are readily cleaned with the vacuum cleaner. Fluorescent lights with "egg-crate" deflectors, are best cleaned by the blower method. The hose is attached to the exhaust and the dust blown out where it cannot be reached by suction. Here again, daily removal of the dry dust reduces or eliminates the need for dismantling the fixture for washing. More intricate light fixtures can be kept clean by the same method.

The quickest, easiest, and most effective way to clean the chalk troughs is with a vacuum cleaner. Using the open end of the hose or a special soft-rubber nozzle one follows the trough from one end to the other. There is also a special tool designed for cleaning the erasers with the vacuum cleaner. It is attached to the end of the hose and the eraser is simply rubbed across the tool.

A partly flattened metal or plastic tube attached to the hose is used for cleaning between the columns of radiators, air-conditioning units, ventilators, etc. For vacuum cleaning drawers, bins, etc., a special tool is fitted with a screen across the orifice to prevent sucking up small needed items.

#### **Cleaner Has Many Uses**

Most heavy-duty vacuum cleaners can also be adapted for furnace and boiler cleaning with the help of special tools. By no other method can the very troublesome "fly-ash" of the furnace be controlled. It is sucked into the tank of the machine for easy disposal. Scraper attachments loosen scale, rust, etc., from boiler tubes so that they can be thoroughly vacuum cleaned. Even books in the library can be cleaned without being disturbed with a suc-

tion tool that passes over the tops, removing all dust.

While the purpose and functions of all heavy-duty vacuum cleaners are fundamentally the same, there are variations in the different models. For the internal filter machine, there are different types of filters, several of which are made of fabric, synthetic fibers, metal wool, or disposable paper. The synthetic fiber filters may be washed as necessary and the metal wool may be cleaned with the blower. The fabric filters must be brushed. It is essential that filters be cleaned occasionally to open up the mesh. A clogged-up filter reduces the efficiency of the machine. The larger the area of the filter, the greater its capacity. The average filter capacity is approximately 400 sq. ft.

When picking up dust, filters should be perfectly dry to prevent caking on the surface. When the machine is being used for wet "pickup," the dry filter is generally removed and a suds baffle installed. It is not necessary, however, to do this with all machines. Some are fitted with an automatic shutoff to prevent an excess amount of water from entering the tank. Others have a water drain at the bottom of the tank for convenient drainage. If floor drains are available, the machine can be emptied over one. Otherwise the tank must be dumped.

Vacuum cleaners are generally powered with universal motors which may be used on either a.c. or d.c.

circuits. However, since cycles differ, the operator must check to see that he is getting the right cycle, usually 60. Motors usually run from one half to two horse power with 10,000 to 15,000 revolutions per minute. Speed alone though, is not the only criterion of efficiency, and neither is the horsepower. The type and size of the suction fan really governs the flow of the air. A large fan on a large motor may run slower than a smaller fan on a smaller motor without loss of comparable efficiency.

On some machines the motor-fan assembly can be detached from the machine and, with a small dust bag attached, carried by hand or slung over the shoulder for small cleaning jobs.

When purchasing a new vacuum cleaner, the "water-lift" factor is always important. This means the height to which the suction will lift the water in a U-shaped glass tube. Now more convenient meters are used for measuring the water lift. A water lift on a heavy-duty machine should range from a minimum of 50 to 70 in. Some of the newer machines run much higher. Velocity and volume of the air flow are as important as water lift in judging the efficiency of the machine.

Most heavy-duty vacuum cleaners have such a wide range of functions that a special tool is available for any specific use. But, ordinarily, the attachments are priced separately from the machine, enabling the buyer to purchase only the tools he needs.

*The attachment on this heavy duty vacuum cleaner can pick up scrub solution from 25,000 square feet of floor space in an hour. The attachment leaves the floor clean and dry, ready for dressing or for normal traffic.*

— Photo courtesy of National Super Service Co.





*The Chance-Loeb Elementary School in Hardin County, Tex., has all-electric heat with individual classroom temperature control. Classrooms are clustered in groups of four, each cluster complete with its own toilets. The buildings are all connected by covered walks. An unusual feature of the*

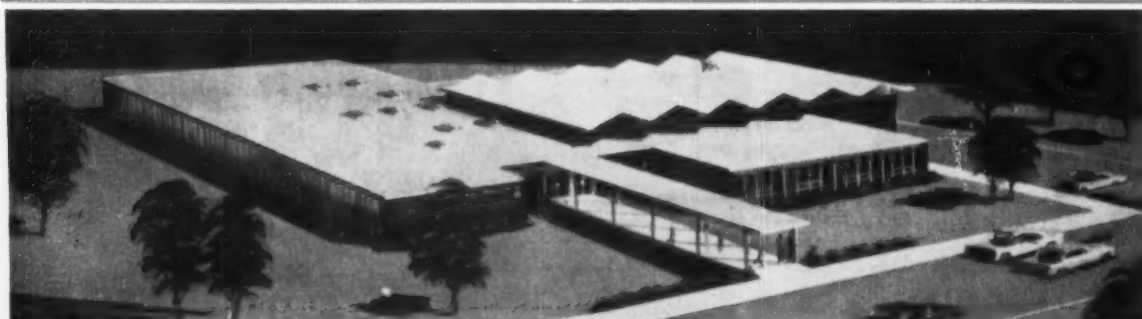
*768-pupil school is the gymnasium with its roof of 4-inch thick concrete "thin-shell" construction with no beams or columns. Richard H. French, Beaumont, Tex., architect, designed the \$265,000 school. The school's superintendent is L. J. Garner.*



*Recently completed for the children of military personnel stationed at the Cambridge, Mass., Air Force Research Center, is the L. B. Hanscom Elementary School. The school houses 450 pupils in kindergarten through eighth grade and is currently being expanded to hold 120 additional students. Facilities at present include 12 classrooms arranged in clusters of three each, with each cluster capable of being operated separately; a double kindergarten, a shop, home economics room, special purpose room, conference room, administrative offices, a multipurpose room under a folded plate roof, kitchen, library and locker rooms. Architects Collaborative of Cambridge, Mass., designed the building.*

## Notable New Elementary Schoolhouses

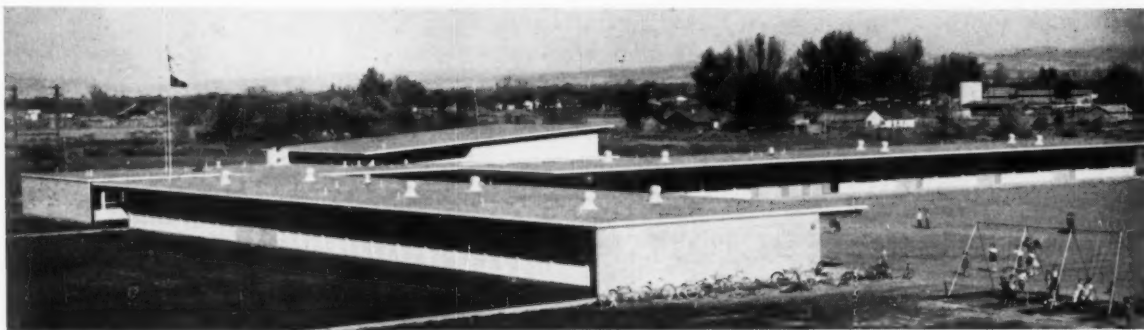
school building  
scrapbook



*The Silver Lake, Kans., Grade School was constructed recently at a cost of \$259,453 or \$12.06 per square foot. Designed by architects Horst and Terrill of Topeka, Kans., the plant includes ten classrooms, including a special education room and a*

*music room, a multipurpose room with stage, two dressing rooms, two offices, a health and teachers' room, kitchen, heating room, janitor's room, lobby, three toilets and four storage rooms. It covers a total of 21,500 square feet.*





*Presented a special citation by the American Association of School Administrators, the May Roberts Elementary School in Ontario, Ore., is the city's first total electric school. The 12-classroom unit, serving grades 1 through 6, cost \$266,807. Each room and work area is equipped with its own electric heating unit, independently*

*controlled for lower construction and maintenance costs and easy expansion. Facilities also include a kitchen, multipurpose room, library, special education room and administration offices. Architects Johnston and Smith, Payette, Idaho, designed the school; Tom Calkins is Ontario's school superintendent.*



*Scheduled for completion in September, 1962, is the New Carter Elementary School in Atlanta, Ga. Containing 32 classrooms for an enrollment capacity of 1122, the school will cost approximately \$766,000.*

*Facilities also include a library, cafeteria (seating 366) and auditorium (seating 760). Superintendent of schools in Atlanta is Dr. John Letson. Heery and Heery of Atlanta, architects, designed the plant.*



*This modern rural School, the Luce Road Elementary School west of Alma, Mich., was constructed for \$76,767 by the Arcada District No. 7. The school contains three classrooms, a multipurpose room, a small office and a small clinic or health room.*

*The design of the building is compact with special emphasis, such as decentralized heating and easily expandable multipurpose room and corridor for the addition of classrooms, for enlarging the school.*

*This is the last of three articles on recent decisions regarding legal cases between school boards and contractors on . . .*

## Bid Performance and Payment Bonds of School Building Contractors

**HAROLD H. PUNKE**

*Dr. Punke is professor of education at Auburn University, Auburn, Ala.*

3. Subrogation, and release of surety. A surety who is held liable, normally seeks to reduce his loss. One route toward this end concerns subrogation—rights in unpaid sums due a defaulting contractor. The other concerns release because of specific happenings relative to suretyship and its subject matter.

a) Subrogation. The doctrine of subrogation is set forth in citation at the beginning of this article. However, it has been involved in recent cases.

An Arkansas contractor<sup>37</sup> assigned to the surety as collateral all money that became due under the contract. A month later the contractor made an assignment to a bank, as security for funds advanced, and notified the district of this assignment. Later he became unable to meet payrolls, and notified the district that he could not complete his contract. He owed materialmen and laborers more than the retainage held by the district. The surety completed the building. The bank looked to a recent statute as setting aside the subrogation rights of a surety. The court rejected this interpretation of the statute, pointing out that by its title the statute relied on was intended to govern the assignment of receivables in the small-loan business. Moreover, added the court, whatever rights the bank had it got through the contractor, and could maintain no action against the district which the contractor could not maintain. Since the contractor's debts to laborers and materialmen was greater than the retainage, he could maintain no action against the district for retained sums. The surety received these sums.

A Washington bank<sup>38</sup> also loaned money to a contractor, secured by an assignment of receivables as work progressed. Appropriate statutory notice to assign was filed with the secretary of state, but neither surety nor school district was notified. About three months later the contractor defaulted. Plans and specifications, contract, and statutory bond were issued as separate docu-

ments, varying somewhat in language concerning liability. The bank relied on the fact that the contract did not prevent the assignment, although the plans and specifications specifically provided against it. The court noted that all of these documents plus the statute were construed together in determining liability. The surety completed the building at the district's request, and thereby became subrogated to rights of the district in sums which it had not yet paid the contractor.

About a year after the contractor's default, one of his other creditors secured a judgment against him through a writ of garnishment served on the district. The court pointed out that where the contractor had nothing to assign, the assignee got nothing through the purported assignment. All unpaid sums belonged to the district, upon default of the contractor.

In a Louisiana suit<sup>39</sup> the relative status of the surety and a bank depended on whether the surety bond had been superseded by a new agreement. In exchange for an assignment of receivables, a bank loaned funds to a contractor for current expense. Shortly thereafter the contractor approached the surety for funds, and gave the surety a note secured by a mortgage in obtaining a loan. The contractor argued that the mortgage arrangement constituted a novation, and superseded the surety's rights of subrogation. The court stated that a novation is a substitution of a new debt for an old one, as agreed upon by debtor and creditor, with the result that the old debt is discharged. The surety contended that the note and mortgage only constituted additional protection under its bond, not a new agreement. The court regarded the evidence as inadequate to determine the issue without further trial, but stated: "If there was a novation, then the claims of the bank against the retained balance might become paramount to that of the claimant (surety), but if the mortgage and note were simply to give additional security, the result would be otherwise."

The Infante dispute<sup>40</sup> concerned the rights of a surety in contrast with rights of the federal government holding tax liens against a defaulted contractor. The surety chose to employ the defaulting Infante as its agent, and to use his equipment in completing the building. The amount withheld was not enough to pay outstanding claims and also to complete the building. The court pointed out that Infante had no "rights of property" in the unpaid sums, which could be subject to tax liens—noting that such liens do not create property, but only attach existing property. "Since the government's rights . . . can rise no higher than the rights of the taxpayer, there was nothing of Infante's to be levied upon," said the court. The surety came ahead of the tax liens.

b) Conditions alleged to release the surety. Various special conditions are frequently offered by sureties as releasing them from liability.

1) Time of filing claims or instituting suit. Timeliness of action is a frequent issue. Specific provisions regarding time may appear in bond or statute. Thus a bond given in the District of Columbia<sup>41</sup> stipulated that no claimant could bring action on the bond unless there was written notice "within ninety (90) days after such claimant . . . furnishes the last of the materials for which such claim is made." Notice was not given within this time, and there was no recovery.

A Massachusetts supplier<sup>42</sup> furnished two types of material to a subcontractor. One type was especially fabricated—prepared for the supplier by another agency. The other type consisted of items from the supplier's stock. The statute required a materialman to file a sworn statement of the amount due, within sixty days of the time when the shipment was completed. The notice was not filed within sixty days of final delivery of the specially fabricated materials, but within that time of delivering the last items from stock. There

<sup>37</sup> *Exchange Bank and Trust Co. v. Texarkana School District*, 227 Ark. 759, 301 S. W. 2d 453 (1957).

<sup>38</sup> *Levison v. Linderman*, 51 Wash. 2d 855, 322 P. 2d 863 (1958).

<sup>39</sup> *American Indemnity Co. v. Webster Parish School Board*, 98 F. Supp. 360 (1951).

<sup>40</sup> *Central Surety and Insurance Corp. v. Martin Infante Co.*, 272 F. 2d 231 (1959).

<sup>41</sup> *United States Plywood Corp. v. Continental Casualty Co.*, 157 A. 2d 286 (1960).

<sup>42</sup> *Massachusetts Gas and Electric Light Supply Co. v. Rugo Construction Co.*, 321 Mass. 20, 71 N. E. 2d 408 (1947).

was no surety liability on the specially fabricated items. But the items supplied from stock amounted to a continuing contract, and notice regarding them was timely—and the surety liable.

In a companion case,<sup>43</sup> timeliness of filing hinged on "labor of supervision" which followed the installation of clocks. Some time was necessary to regulate relationships between the master clock and some hundred secondary clocks. The contract consisted of a letter and a sheet of items carrying a lump sum bid. It was understood that supervision after installation was part of the job, although not mentioned in the written documents. The materialman filed a claim on June 28, but the labor of supervision was not completed until July 30. No claim was filed after July 30, within the statutory time limit. The surety was not liable.

An Illinois bond<sup>44</sup> was conditioned to "promptly make payment" to materialmen, and gave them a "right to sue" on the bond. A statute made the surety liable for materialmen's claims which were not satisfied "after final settlement between the . . . board . . . and the principal." The surety contended that the statute made him liable only for claims that remain unpaid after final settlement between the district and the principal contractor. The materialman contended that the bond could and did provide for more prompt payment than the statute required. The court upheld the materialman. Action was not premature.

A Minnesota uncertainty<sup>45</sup> related to giving two notices. The statute required that suit be instituted within a year after written notice of a claim. Suit was instituted within a year after the notice on which suit was based, although more than a year after a first notice. The court held that the first notice was immaterial, and that suit was timely brought.

A second Illinois case,<sup>46</sup> also governed by the statute making the surety liable for claims not satisfied "after final settlement between the . . . board . . . and the principal," involved another statute which denied a right of action on the bond unless the materialmen filed his claim with the board "within 180 days after the date of . . . furnishing of the last item of material." The statute further stipulated: "No defect in the notice . . . shall deprive the claimant of his right of action . . . unless . . . such defect has prejudiced the rights of an interested party asserting the same." It was contended that the last provision covered timeliness as well as form of notice. The court rejected the contention, holding that the provi-

sion related only to technical defects within a timely notice, and that timeliness was a condition precedent to a right of action under that statute. It was also contended that the 180 days began to run on the date when the last materials for the entire job were furnished, not on the date when a particular materialman supplied his last materials. The court also rejected this contention, reasoning that such an interpretation would ruin small suppliers by causing them to wait several years for pay—in case of large projects. However, the court noted that the two statutes involved were remedial, and to be liberally construed. It held that the section authorizing action by a materialman who remained unsatisfied "after final settlement between the . . . board . . . and the principal" gave the materialman a right of action—even if he did not avail himself of the section regarding the 180 day notice.

In an Ohio suit,<sup>47</sup> timeliness regarding claims and suit depended on what constituted acceptance of a building. On January 10, 1952, the architect certified to the board that final payment was due under the contract. On April 30, 1953, the board's construction engineer made the same certification. On May 1, 1953, the clerk-treasurer certified to such payment as correct. The same was approved by the president of the board and paid on that date. The plaintiff gave notice to the surety on January 21, 1954, and instituted suit on June 17, 1954. He contended that the building had never been accepted, since there was no board resolution specifically accepting the job as completed. The court noted that the statute authorized acceptance by the board or by its officers, and that all actions taken were entered on public record. The action by the clerk-treasurer and president on May 1, 1953, was an administrative determination of acceptance, said the court. Since the plaintiff did not give notice or institute suit within the respective ninety days or one year of acceptance, as required by the statute, he could not recover.

What constituted acceptance was also the basis for determining timely action in a New Jersey case.<sup>48</sup> On August 29, 1949, the architect wrote the board that the work had been completed, and recommended acceptance. On September 9, 1949, the board resolved to accept the work, subject to the contract and "counsel approval of any guarantees that may be required"; and resolved to make final payment when appropriately certified by the architect "but subject to the receipt and approval of the board's counsel of all releases to be furnished by said contractors and the payment of all lien claims, if any." On May 10, 1951, the board's property committee "respectively reports that the work" involved

"has been completed." The committee added: "Your committee, therefore, recommends that the work of the foregoing contractors be accepted." The recommendations became a resolution, passed by the board. The court held that board action on that date was complete and final acceptance. Notice and suit within the statutory time of May 10, 1951, was adequate.

A Washington board<sup>49</sup> resolved on November 13 to accept a building contract "as completed subject to the completion of certain items referred to in their (contractor's) letter of November 13, a copy of which is attached to these minutes." On next April 3 the board resolved: "whereas the contract for the construction . . . has now been completed in its entirety . . . including those items listed as incomplete in the letter of . . . November 13 . . . be it resolved that the said contract be and the same is hereby finally accepted as complete, without qualification." The court held that only the resolution of April 3 constituted full acceptance. Notice within the statutory time of that date was adequate.

2) Occasional issues, alleged to release sureties. Several occasional developments have been advanced as releasing sureties from liability. In the Mullan case,<sup>50</sup> the fact that a subcontractor entered bankruptcy before the materialman sued did not release the surety. And the silence of a materialman, who knew that the contractor was being paid when he in turn was not, did not stop the materialman from action against the bond. The court also noted that a statute which required a surety to "promptly make payments to all persons supplying labor and material in the prosecution of the work," did not require the supplier to furnish both labor and material in order to be covered by the bond.

A statute in the Bernard case<sup>51</sup> expressly required the bond to provide for taxes under the State Unemployment Insurance Act. Dispute involved surety liability under a contract provision to pay stipulated sums into a workers' health and welfare trust fund. The surety contended that since the legislature listed one specific kind of tax to be covered by the bond, it was not the legislative intent that other similar obligations such as that for the trust fund should be included. The court stated that the insurance tax was a government imposed obligation, whereas the welfare-fund payments were a mutually agreed contractual obligation. The statute did not exclude the contractual agreement.

<sup>43</sup> *National Blower and Sheet Metal Co. v. American Surety Co.*, 41 Wash. 2d 260, 258 P. 2d 547 (1952).

<sup>44</sup> *Mullan Construction Co. v. International Business Machines Corp.*, 220 Md. 248, 151 A. 2d. 906 (1959).

<sup>45</sup> *Bernard v. Indemnity Insurance Co. of North American Surety Co.*, 41 Wash. 2d 260, 248 P. 2d 547 (1952).

<sup>46</sup> *Coburn Supply Co. v. James E. Caldwell Co.*, 231 La. 1026, 93 So. 2d 546 (1957, rehearing denied).

(Concluded on page 44)

<sup>43</sup> *International Business Machines Corp. v. Quinn Bros. Electric Co.*, 321 Mass. 16, 71 N. E. 2d 406 (1947).

<sup>44</sup> *Board of Education, Decatur School Dist. No. 61, Macon County v. Swan*, 5 Ill. App. 2d 124, 124 N. E. 2d 554 (1955).

<sup>45</sup> *General Electric Co. v. Anchor Casualty Co.*, 87 N. W. 2d 639 (1938, rehearing denied).

<sup>46</sup> *Board of Education, for use of Palumbo v. Pacific National Fire Insurance Co.*, 19 Ill. App. 2d 290, 153 N. E. 2d 498 (1958, rehearing denied).

<sup>47</sup> *Johnson Service Co. v. American Casualty Co.*, 148 N. E. 2d 112 (Ohio Common Pleas, 1957; affirmed by Court of Appeals 149 N. E. 2d 21).

<sup>48</sup> *Paul H. Jaehing, Inc. v. Standard Accident Insurance Co.*, 18 N. J. Super. 536, 87 A. 2d 558 (1952).

## How Should Our Federal Office of Education Be Staffed?

ELAINE EXTON

If recent trends in the staffing of the U. S. Office of Education continue, government career administrators with little or no experience in education—rather than educators versed in the academic disciplines, or educational research or administration—may determine key policy-making activities of the Office and thereby influence the future course of American education.

This danger has been recognized by many persons who have had close working relations with the U. S. Office of Education in the past several years. It was brought to general public attention for the first time by the publication of *A Federal Education Agency for the Future*.

This report by a committee of O.E. career administrators appointed last October by former Commissioner of Education Lawrence G. Derthick to assess the trend of responsibilities which might be assigned to the Office of Education during the decade of the 1960's and recommend an organization structure for carrying them out was not submitted until after the Eisenhower Administration left office. It has not been approved by the new U. S. Commissioner of Education Sterling M. McMurrin and does not represent the official position of the Office of Education or of the Federal Government.

However, new proposals embodied in Title X of the Kennedy Administration's bills to extend and improve the National Defense Education Act (H.R. 6774 and S. 1726) as well as in the "clean" bills reported by the House Education and Labor Committee (H.R. 7904) and the Senate Committee on Labor and Public Welfare (S. 2345) authorize broad new powers for the U. S. Commissioner of Education along lines set forth in the "Administrative-

Confidential" edition of *A Federal Education Agency for the Future*, including a program for the interchange of personnel between the Office of Education and the states not subject to Civil Service laws.

Under this reorganization study committee's proposals the impact of Office of Education personnel on American education would be greatly strengthened, but in attaining this objective the Office would become less representative of the thinking of the American people and the lay and professional organizations most concerned about American education.

### A Disputed Plan\*

Educators as well as members of Congress have voiced concern about the new functions, organizational structure, and staffing proposed for the federal education agency for the future, fearing that it may lay down guidelines for centralized control of American education. A perusal of its pages will yield many examples of suggestions which, if actually carried out, could basically alter the existing pattern of federal-state and state-local educational relationships.

Throughout the development of the Office of Education in the years from 1867 to 1942 when it "existed in a society in which virtually all responsibility for the conduct of American education rested outside the Federal Gov-

ernment," the Mission Committee acknowledges the Office had "a clear responsibility to assist educators throughout the Nation to do their work as *they saw their work*." (Italics theirs.)

During this three quarters of a century, when the Office of Education was, in their view, "other-directed," problems "identified by working educators were referred to the Office for study and analysis, and solutions . . . to local problems, advocated only by those with actual responsibility for local education . . . frequently emerged."

But to provide the new dimensions of leadership which the reorganization study group foresees for the education agency of the future: "In its research and information activities it must be concerned, more than ever before, with identifying and even anticipating needs and problems of national concern in every educational field. Indicators must be sought not only within our educational system, but in the social, economic, political, and moral aspects of our national and international life. . . .

"Having identified an area of need, moreover, the Office must have the strategic mobility to bring to bear upon education problems of high priority the resources required. The dissemination of educational information, although an important function in itself, must be capable of meshing with the more substantive measures which may from time to time be needed. In other words, the Office of Education must be a striking force ready to move along the educational problem front at home and abroad."

Over the next decade, the Derthick-selected Committee on the Mission and Organization of the Office of Education, says the Federal Education Agency must "not only perform its traditional func-

\* For a more detailed description of the recommendations in *A Federal Education Agency for the Future* and some reactions to them, see "What Kind of a U. S. Office of Education Is Needed Now?" in the August, 1961, issue of the AMERICAN SCHOOL BOARD JOURNAL. If copies of the study are no longer available from the Office of Education, the entire text of the publication may be read on pages 11868-11879 of the *Congressional Record* for July 18, 1961.



tions of data gathering, analysis, and dissemination; research; and services to organized education (but) assume new and important responsibilities."

According to their study, for example: "It (the Office) must also prepare itself to assume larger responsibilities in carrying out federal policy through the administration of operating programs." (The report cites 11 major areas as illustrative of those in which the Office "may expect to administer operating programs of significantly increased scope and impact" including "broadening of federal interest in curriculum and improvement of instruction.")

"Out of the increasingly active role of the Federal Government in our society," the Mission Committee perceives the emerging of "yet another new function and responsibility of the Office of Education. It is to be responsible for the monitoring (in the communications rather than schoolmaster's sense of the term) of Federal activities that affect the Nation's educational well-being (and) as such, it must assume the role of a voice of conscience within the Federal Government, speaking for the long-term national interest in education. . . .

"And it must render assistance in the development of public educational policy (by) being prepared to render vastly increased services to the President . . . in the initiation and formulation of broad national policies in the field of education."

Moreover, the Mission Committee considers that "the Federal Government can and should reflect a growing sense of educational nationhood—an awareness that the implications of education are indisputably national, however local may be the control of education."

#### Present Staff Size

The Office of Education, which began its life, with a Commissioner of Education (Henry Barnard), a clerk, and a messenger, by the fiscal year 1961 had 1047 employees on its payroll at an annual cost of \$13,875,000 just for "salaries and expenses." Of this number 718 were on the regular Office staff and 329 in National Defense Education Act positions.

Noting during the hearings on the Office of Education's budget for the 1962 fiscal year (which requested an additional 96 jobs) that "in five years the number of positions in the Office of Education has more than doubled," Appropriations Subcommittee Chairman John E. Fogarty (D., R. I.) commented: "We get some criticism of this type of expansion when we bring this appropriation bill up before the House."

#### New Staffing Proposals

Since the Committee on Mission and Organization did not release any figures on how large a staff would be necessary to man the four new Bureaus and the Office of the Commissioner it envisions, guesstimates are being made. Representative William H. Ayres (R., Ohio), for instance, has predicted that it would

require 50,000 people to operate their "master plan." Under the title "field staff," he said, "one can readily see a federal supervisor in every school district."

Whatever the correct number may be, it appears certain that a substantial increase in personnel would be required to carry out the recommendations in *A Federal Education Agency for the Future* since "the (study) committee foresees an extension of the active federal role in education (and) recognizes a need for strengthening staff resources in keeping with the expanding role of the (United States Education) agency."

Moreover, and of greater significance, the composition of the Office of Education's work force could be significantly changed if the report's proposals are adopted. This in itself could have a tremendous influence on the type of education carried on in the various individual schools of the nation.

Although the Annual Report of the Department of Health, Education, and Welfare for 1960 points out that "the U. S. Office of Education continues to be the only Federal agency whose total concern is education," the study group on the O.E.'s mission somewhat ambiguously states: "It must in a current phrase, be an office of education, *not an office of educators.*" (Italics mine.)

"More specifically," their report continues, "the popular foundations of American education argue for the treatment of educational problems in the larger context of American life. . . . They argue, too, for a staff that is broadly concerned with and sensitive to all aspects of American life."

In discussing the kind of a staff it contemplates for the Division of Policy and Program Development in the Office of the Commissioner, the Mission Committee "cannot conceive of truly effective performance without the presence on the Division staff of *persons trained in economics*, sociology, government and *political science*, statistics and other similar fields."

This concept is further elaborated on in an Appendix which says in part: "Economists, sociologists, and other social scientists will be needed on the staff to assist in dealing with educational problems in their total context. The relationships of the Office in these larger concerns may well extend beyond the boundaries of organized education, particularly as they affect such multi-phase areas as adult education."

The net result of such a development could be to place the management of the Office more firmly than ever in the hands of the career bureaucrats, rendering it even more difficult for the professional educators to function effectively.

It may not be generally recognized that during the Eisenhower Administration the first steps were taken to put such competencies on the O.E. staff. At this writing at least two economists are in the Office of Education's employ. One is at work in the Reference, Estimates, and Projections Section of its Division of Statistics. Another is en-

gaged in editing a symposium on "Economics of Higher Education" some of whose views are expected to support the Mission Committee's contention that the "obligation (of the Federal Government to provide substantial financial aid to education) is reinforced by a realistic consideration of public finance—the substantial revenue resources available to the Federal Government as opposed to those available to the states and localities."

The fact that a political scientist is now a Special Assistant to the U. S. Commissioner of Education may have significance in view of another assumption of the O.E. "mission study."

It is interesting to recall that the Mission Committee acknowledges "as a fact" that there has been "a change in public conviction as to the role of the Federal Government in the area of education" and then relies on special analyses by economists and political scientists to justify this conclusion rather than seeking out the real grass-roots opinions of school boards and other lay and professional groups concerned with education which are readily available.

#### Influx of Noneducators

Actually the movement to staff the Office of Education, especially its higher echelons, with persons with no background of training and experience in education beyond a college degree in statistics, psychology, or a management field, has already been under way for some time.

To improve the management and research services of the Office, statistical and management specialists were added to its staff during Commissioner Brownell's tenure to act as consultants and aides to the education specialists. But there gradually took place a reversal of roles, with noneducators ending up in the administrative posts in a number of instances.

Interestingly the two largest invasions of noneducators have been led by government officials whose training and experience lie outside the education field.

The first was spearheaded by Joseph W. Kappel who came to the Office of Education from the Office of Statistical Standards of the Bureau of the Budget in the spring of 1956, first on a loan basis and later as an Assistant Director for Program Co-ordination of the O.E.'s Research and Statistical Services Branch. (He is now a Program Analysis Officer in the Office of the Secretary of Health, Education, and Welfare.) His study on how to improve the statistical services of the Office resulted in bringing in personnel whose training and interests lie in such areas as mathematical statistics rather than in the field of education.

While it cannot be readily ascertained how many of the present employees in the Division of Statistics and Research Services are noneducators, it is known that it is now possible for noneducator statisticians, if they happen to hold administrative posts, to look forward to

(Continued on page 47)

# the editorial stand

## BETTER PROCESSING OF EDUCATIONAL DATA

IF OUR public school system is to continue successfully on the basis of state control with state and local support, it will be necessary that the state departments of education provide leadership not only in the areas of school organization, curriculum, and a constantly higher standard of achievement; it will also be necessary that the state departments move forward in what may be considered secondary areas of administration, such as accounting and record keeping. It has been shown clearly that numerous aspects of pupil and financial accounting spell the difference between success and failure in a school district and even in state school systems. Definite and uniform accounting has been a problem in all states, in many respects as important as any aspect of administration.

In this matter, the state department has a major responsibility for leadership, for bettering the administration and operation of the schools, and for providing instruments of self criticism and evaluation. During the past five years the use of mechanical, and lately of electronic, devices has grown with increasing rapidity and has released local school authorities from much of the tedium and the inaccuracies of the older methods. Dr. James E. Allen, Jr., State Commissioner of Education for New York, has just issued a memorandum to executive officers of higher institutions and to superintendents of schools and supervising principals of New York state "indicating some of the educational implications of data processing machines and outlining the [State Education] Department's program for promoting the application of this rapidly developing technology to education." He writes:

Data processing machines, especially the electronic computers which have been developed in the last few years present an exciting and promising challenge with major complications in the field of education.

Computers can add, subtract, multiply, divide, "remember" and check the accuracy of their own answers. Soon they will "read" and "translate." In factories, they operate machines. In department stores and super markets they take inventory. They help railroads assemble freight trains and they speed the making of airline reservations. They guide space probes, gather, and analyze intelligence data around the world. . . .

The largest bookkeeping task in the world — maintaining master records on the 135 million people covered by Social Security — is done automatically.

Computers have opened a vast new technology which affects subject matter of education, the methods of education, and the administration of the educational process. The widespread interest in and accelerated use of computers requires that increased attention be paid to this development in the schools and colleges. The time has come to assess what is being done, what has to be done, and to take appropriate action.

### Program Implications

The faculty and students must become acquainted with the new language, processes, and machines which are beginning to appear about us.

Business, technical, and scientific courses of study must incorporate the concepts and techniques of mechanized data processing, which is popularly referred to as automation. There is the obvious need for training some persons to work directly with the machines, and many more have to be given an understanding of the basic principles of these machines so that they may be able to use them in their occupations. Whether one is engaged in accounting, biological work, engineering, or legal work, he will be making use of mechanized data processing. Courses of study, especially those which involve mathematical processes, will have to include the

concepts necessary to use computer technology intelligently.

### Administrative Implications

Mechanized data processing has many applications also to a great number and variety of the administrative and educational procedures in schools and colleges. A number of the institutions which have been using such equipment have found them of great aid in payroll and budget preparation, financial accounting, property inventory, programming of students, test scoring and analysis, and in preparing a great variety of records and reports.

Reports from these schools contain evidence that the machines eliminate hours of clerical drudgery and free the education staff to devote more time to their professional duties. For example, the laborious work of registering students and organizing classes at the beginning of each term can now be done in substantially less time by use of data processing equipment. This gives the administrative staff time to do a better programming job by resolving class schedule conflicts and personality differences. The application had the added advantage of creating many by-products such as class lists, and reports of attendance and grades using the same basic punched cards.

School and college administrators can now obtain more information about school operations and, what is more important, they can obtain it faster and in a more meaningful form through the use of machines. Data can be presented to them in summary and statistical form with exceptions from the norm noted for administrative review and action.

Data processed mechanically can also be interchanged among schools, colleges, and the State Education Department more easily and sooner. As a result, there can be improved educational planning on a statewide basis.

The New York State Department has set out to help local school systems in the use of electronic data machines according to their size and needs. Dr. Allen outlines the program:

### Department Program

An integrated data processing system involving all the schools and colleges of the state and the Education Department holds great possibilities for the improvement of administration of education. The success of any system, large or small, however, is greatly dependent on the amount and quality of the study which goes into planning the mechanized procedures and the selection of the machines to be used.

The [New York] State Education Department has operated a data processing machine unit for record keeping and research purposes for a number of years. It has also attempted to aid schools in their efforts to use data processing equipment. Developments in this field, however, are proceeding at such a rapid pace that greater efforts must be directed toward that field. It is to this end that the department has embarked on the following program:

1. The staff members will work with the schools and colleges in the application of machines to administrative procedures. They will be concerned with providing technical assistance, serving as a clearing house for collecting and disseminating information on the use of machines, develop manual of procedures for use of data processing machines, standardize coding of data, and promote the use of machines either through independent units in schools and colleges which have large enough volume of work to warrant such units, or through regional units or contractual arrangements with service agencies in schools and colleges with smaller work loads.

They will also work closely with the Machine Unit in the Department so that the statistics from the schools and colleges could be transmitted to the Department on magnetic tapes or punched cards and eliminate the necessity for manually prepared reports.

2. The instructional and curriculum advisory personnel of the Department will work with schools and colleges in the development of courses of study in mechanized data processing and computer technology. They will also seek ways of introducing the subject in related courses.

3. The equipment and operations of the Department will be mechanized to take advantage of the latest advances in the field.

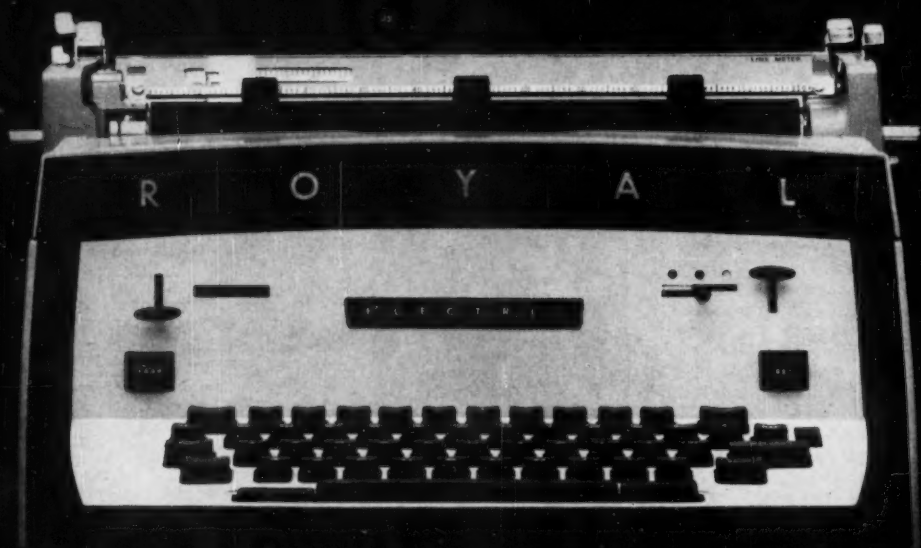
4. The Department will explore the possibilities of using federal and state funds to help schools and colleges obtain the needed equipment.

5. A top level department committee is already at work in

(Concluded on page 44)

*Quick speed is good,  
where Wisdom  
Leads the way.*

[R. Green, Selimus]



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# Milwaukee's Lunch Program

*A sketch of the size, scope, menus, food preparation areas, and transport arrangements involved in a typical big district's school food efforts.*

School lunches are a \$1,250,000-a-year business in Milwaukee, yet students pay a lower price per meal than in any city of comparable size in the country.

The program, aided by government surplus foods, operates in the black while serving more than 3,000,000 lunches a year at a cost of 25 cents a meal for grade school children and 30 cents a meal for junior and senior high school students.

Eighteen thousand youngsters benefit from the program, which now serves more than 70 of the city's 125 public schools. Along with preparing for new schools being opened every year, officials are working to expand the program to the other older schools as soon as possible.

## Preparing the Food

It requires a small army of 250 carefully selected, well-trained employees to operate this "Type-A" hot lunch program in which all students have the same menu. There is no a la carte choice.

Students are served a hot meat or fish or casserole dish, a cold salad, vegetables, bread or rolls, butter, a baked dessert or fruit, and milk. And no menu is repeated in the same month.

Food preparation and service involve 17 high school kitchens, 25 grade school kitchens, five central kitchens, and 23 grade school receiving kitchens.

Hot lunches are transported from central kitchens to the small receiving kitchens, so that one central kitchen staff might prepare food for 600 students in that school and 500 more in nearby grade schools. The longest delivery run for the special trucks which service the receiving kitchens is three miles.



— Photographs courtesy Hobart Manufacturing Co.



*Two views of typical kitchens in the Milwaukee school systems' lunch program, showing (above) a baking area where all bread, cakes, rolls, etc., for the hot lunch program are mixed and baked, and (below) a dishwashing area where a machine can wash 4875 dishes or 8775 glasses per hour.*







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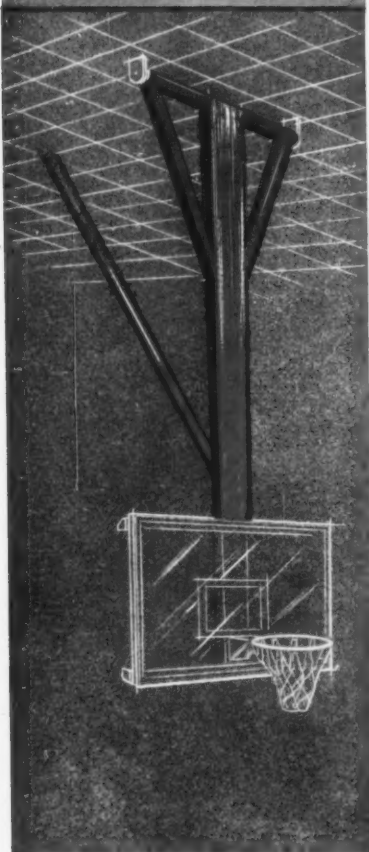
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## Bid Bonds

(Concluded from page 37)

In one instance<sup>52</sup> it was contended that the liabilities in question were not properly chargeable to the surety, because the subcontractor was not actually in default. However, he had failed to perform according to specifications, although the contractor had repeatedly called this fact to his attention. Moreover the contractor had to repair work which was not properly done by the subcontractor, and do work which the subcontractor had left undone. Also, the subcontractor had failed to pay materialmen. He was held to be in default.

Threats and duress, exercised by a materialman on a Minnesota contractor<sup>53</sup> to induce the latter to accept materials supplied, was charged by a surety. The surety cited precedent for release of a surety if fraud or duress was involved in the acceptance of materials by the contractor. The court said that threatening legal action to recover on unpaid bills, the only threat here involved, was not duress. The court also noted that charges of duress could not be brought by a third party, but only by the person presumed to be threatened. This defense against liability was rejected.

The surety of a defaulting Oregon subcontractor<sup>54</sup> contended that he should be released because payments by the contractor to the subcontractor had been made prematurely. The court recognized that excess payments, which deprive a surety of his security, may release the surety. But in the case at bar the payments were made according to contract, and could not be considered excessive. The fact that the contractor did not inquire whether the subcontractor's bills were paid, before paying the subcontractor in full, was immaterial.

A lumber company extended the time of payment allowed a Florida contractor,<sup>55</sup> and the surety claimed that the extension released him. The court said that unless the surety could show wherein the extension prejudiced the surety, there could be no escape from liability because of the extension. No prejudice was shown.

c) Indemnitor of the surety. It may seem unusual for a surety to engage indemnitors to insure it against loss. However, such an arrangement appeared in New York.<sup>56</sup> Two officers of Eugene Higgins, Inc., acted individually in agreeing to indemnify the surety for any loss it might sustain through bonds for Eugene Higgins, Inc.—covering three projects. The indemnity agreement provided that the surety's vouchers of payments, made in good faith on debts arising under the bonds, "shall be

<sup>52</sup> General Electric Co. v. Anchor Casualty Co., 87 N. W. 2d 639 (1958, rehearing denied).

<sup>53</sup> Wiley Co. v. Home Indemnity Co., 213 Ore. 493, 326 P. 2d 123 (1958).

<sup>54</sup> Pan American Surety Co. v. Board of Public Instruction of Dade County, 99 So. 2d 890 (1958).

<sup>55</sup> Standard Accident Insurance Co. v. Higgins, 170 N. Y. S. 2d 73, 9 Misc. 2d 371 (1957).

taken as conclusive evidence" against the indemnitors—jointly and severally. Upon insolvency of the contractor, the surety was called upon to pay various claims of laborers and materialmen. The court granted recovery by the surety from the indemnitors. ■

## Editorial Stand

(Concluded from page 40)

4. The Department will explore the possibilities of using federal and state funds to help schools and colleges obtain the needed equipment.

5. A top level department committee is already at work in advising the Commissioner of Education and the Regents on the program needed in this field and to co-ordinate department efforts.

6. In addition to the departmental committee, there will be established an advisory council, to help co-ordinate the department and school efforts.

7. State-wide conferences are being planned to explain data processing and its implications for the schools and colleges.

Dr. Allen concludes that "the mechanization of data processing represents an opportunity and a challenge to apply the new technology to educational operations, and to increase the productive efforts of society. The extent to which these objectives can be achieved will depend upon the imagination, effort, and co-operation put into this undertaking."

The more progressive of the large city school systems already have data processing programs in use. A few medium-size cities have made a start and numerous smaller communities are studying their needs and opportunities. In this matter the intermediate school organizations can help on a county-wide basis; local colleges and even commercial service units can be called upon. In industrial towns there usually are school board members who are manufacturing or commercial executives and who can make available to the schools valuable knowledge and experience. ■



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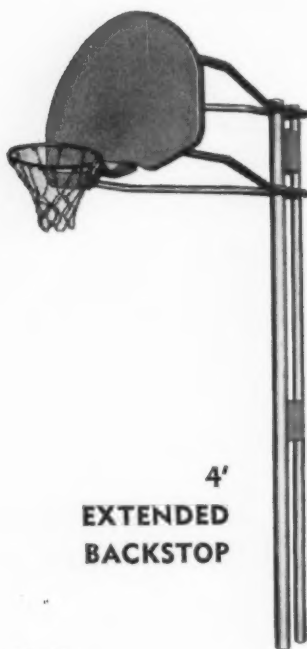
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### Local Responsibility for Education in Small School Districts

By Edgar L. Morphet and John G. Ross. Paper, 41 pp., \$2. Bureau of Public Administration, University of California, Berkeley 4, Calif.

This report recommends enlarging local school districts so that the community has: (1) a broader basis for selecting competent school board members; (2) an opportunity for employing a more competent chief executive; (3) an opportunity for local school boards to formulate policies for improved professional conduct of the schools; (4) 12 grades of instruction and a broader program of subject matter; (5) a broader, clear-cut program of taxation and total school financing.

### Merit Rating or Effective Personnel Policies

Edited by Viril M. Rogers. Paper, 64 pp. Syracuse University, Syracuse, N. Y.

This report of a week's workshop expresses the doubts, disappointments, and the unconscious opposition of teachers and school administrators to the basic idea of efficiency rating of teachers. The conference had a valuable positive aspect: the speakers did advocate better personnel policies which will result in more effective teaching. Amelie Rothchild, a laywoman, concludes: "Nothing is impossible—even merit rating."

### Environment for Learning

Prepared by Golemon & Rolfe, architects. Paper, 19 pp. Sponsored by Carrier Corporation, Syracuse, N. Y.

This research study recommends the extreme in compact arrangement of school buildings for economy in first cost and operation. The plan shown in the study reproduces the identical instructional and service areas in a conventional high school. Only the science rooms, the library, the music rooms, and the vocational shops have exterior exposures. All of the remaining facilities must depend upon top lighting, artificial illumination, and air conditioning for usability. The study raises the question whether school authorities are ready to use this type of environment for teaching and learning.

### Blueprint for Better Schools

Paper, 22 pp. National Lumber Manufacturers Association, Washington 6, D. C.

Architect Seymour Auerbach has provided in this publication designs for a compact one-story elementary school, a two-story elementary school to be built against a hillside, and a pavilion-type school with six classrooms and a common room in each unit. The publication includes a collection of photographs illustrating details of wood construction in various school buildings from Maine to California.

### You and Your Career

Prepared by Prof. H. Alan Robinson. Paper, 50 cents. Collier's Encyclopedia, 640 Fifth Ave., New York 19, N. Y.

This list of 121 careers provides vital information such as job description, employment trends, qualifications, preparation, entrance requirements, chances for advancement, earnings, and competition in the field.

### How to Increase Reading Ability

By Albert J. Harris. Cloth, 624 pp., \$6. Longmans, Green & Co., New York 18, N. Y.

This guide to developmental and remedial methods in reading is a revised and enlarged edition of a book which has enjoyed popularity over two decades. It takes up (1) the causes of reading difficulties, (2) how best to develop word recognition skills, (3) how to teach reading to handicapped children, (4) characteristics of remedial teaching, (5) fostering reading interests and tastes, (6) how to improve the rate of reading, and (7) case studies of reading disability.

### Latest Thinking on Appraisal and Improvement of Teacher Performance (Merit Pay)

Edited by T. G. Tulin. Paper, 118 pp., \$4. Barrington & Co., Inc., New York, N. Y.

This report of a three-day seminar highlights the subjective difficulties and the past failures of teachers' merit pay programs. Several contributors point out the fact that teachers must ultimately accept the idea that greater increase in pay must depend upon better service and recognition of achievements. Several of the statements refer to the fact that in the professions and industry the highest paid people have the least security and render services which are most highly appreciated by their clients.

### Television in the Public Interest

By A. William Bluem, John F. Cox, and Gene McPherson. Cloth, 192 pp., \$6.95. Hastings House Publishers, Inc., New York 22, N. Y.

This practical book outlines methods of planning, producing, and performing programs in the public interest. It will be found to be of particular help to school authorities who desire to prepare programs for an unusual occasion or for continued programs which bring the local community into contact with the work of the schools. The authors call attention to common errors and dangers in the preparation and presentation of materials and provide much practical information on the doing of detailed jobs which are effective in serving the interests of an entire community.

### Television in Education

By William T. Voorhies. Bulletin No. 1, January, 1961. Paper, 46 pp., \$1.25. School of Education, Indiana University, Bloomington, Ind.

This bulletin traces the beginnings of educational television, defines the terms and cites the uses of television, and concludes with an outline of the problems and advantages and the need for fundamental research.

### Graduate Study in Public Administration

By Ward Stewart. Circular No. 631, 1961. Paper, 158 pp., \$1.25. Superintendent of Documents, Government Printing Office, Washington 25, D. C.

The report describes 145 graduate programs in public administration being conducted by 83 institutions of higher education. The report includes a narrative discussion and outlines some of the new and developing programs that have come into being since World War II, plus a chapter citing significant current trends and promising areas of further research.



## Word From Washington

(Continued from page 39)

higher salary levels than are open to the educators trained in statistics who work under their direction.

"During fiscal year 1957 the research and statistical staff (of the Office of Education) was increased from 26 to 68 persons" according to the 1957 Annual Report of the Department of Health, Education, and Welfare. When this article went to press there were more than 100 persons employed in the Educational Statistics Branch alone, more than composed the entire permanent staff of the Federal Office of Education 30 years earlier (which consisted of 97 people in 1931).

Despite this marked expansion in personnel, Office of Education statistics have never been under as heavy fire as in the past few years. Even members of Congress are beginning to question whether some of the present inadequacies of O.E. statistics may not stem from the lack of understanding of education on the part of noneducator statisticians holding administrative posts who are responsible for planning and conducting research studies and interpreting the data.

Program planners, executive officers, and administrative assistants who are noneducators have also been added to the Office of Education's payroll in increasing numbers in recent years and allowed to assume increasingly important policy-making and administrative positions.

In the fiscal year 1952 when there were 438 permanent Office of Education positions, 77 of these were budgeted for "Program Direction and Services." Ten years later 198 persons were requested for this purpose in the O.E. budget for the fiscal year 1962, and 182 persons were actually so employed there in the 1961 fiscal year (110 in regular O.E. positions and 72 in NDEA jobs).

As of the fiscal year 1961, 90 people were at work in the Administrative Management Branch of the U. S. Office of Education, the majority of whom are personnel, fiscal, and budget people who have not had much, if any, experience in education, either methods or administration, and may not be conversant with or understand the American tradition of state and local control of education.

As one Office of Education official summed up the situation the employees in this Branch "do not necessarily require education competencies. As far as I know no professional educators as such are in the Administrative Management Branch."

Even the present head of this branch prior to his appointment as an executive assistant in the Office of Education in 1952 had no experience in the field of education, but had been an organization and methods examiner for the U. S. Public Health Service and a procedure investigator for the Social Security Board.

(Concluded on next page)

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Yet the person holding this position not only administers the personnel functions of the Office, but has constant access to the U. S. Commissioner of Education, and as a consequence may strongly influence the education program, which the Office of Education submits to Congress. This is also made possible through his role in preparing budget estimates and other supporting documents and testifying at Congressional hearings.

Just as in a hospital doctors plan and supervise the patients' health care and have responsibility for those phases of hospital management dealing with the health problem, so an educational illness needs an educational expert familiar with and sympathetic toward educational maladies in order that a proper diagnosis may be made and appropriate treatment prescribed.

In stressing that the responsibility for determining the activities of the Office of Education which affect education should rest with professional educators, the need for maintaining a balanced representation on the O.E. staff, and in its various activities, of educators with differing philosophies, professional skills, and memberships in a diversity of professional organizations should also be made clear.

#### Recruitment Practices Important

An important aspect of any current Office of Education reorganization, not dealt with in *A Federal Education Agency for the Future*, is the revamping of its recruitment, placement, and promotion policies to insure that representative types and philosophies of education are included in the O.E.'s professional staff. Improvements here could make a vast difference in the quality of the Office of Education's services without requiring either the elaborate organization structure suggested by the Mission Committee or additional money.

Implementation of this viewpoint was a noteworthy factor in the reorganization of the Office undertaken by former Commissioner of Education Samuel M. Brownell who considered that "the Office of Education as a national office ought to draw on talent from all over the nation and that the only way this can be done is through a program of national recruitment that will enlist the co-operation of colleges and universities and school systems and state departments of education in trying to locate the best qualified people for the available positions."

To assure the Office of securing the very best persons obtainable through civil service channels, Commissioner Brownell recommended that the Civil Service Commission appoint a new and enlarged Board of Civil Service Examiners.

#### Civil Service Examining Board

Whereas the previous board responsible for rating and evaluating applications for Office of Education jobs consisted of only five members, four of whom were regular O.E. employees, under Commissioner Brownell's recommendations the board was expanded to

17 members, 15 of whom were part-time consultants from the outside who had achieved national stature in their respective education fields. The Deputy Commissioner of Education was the Board's chairman, and the O.E.'s Chief of Personnel served as the executive secretary.

Since Commissioner Brownell's departure the employment practices of the Office of Education have moved in the direction of appointments which are controlled, with personal friendship in many cases playing a decisive role in the final selection rather than objective rating and evaluation of applicants.

In April, 1961, the five-member Board of U. S. Civil Service Examiners of the Office of Education, a hold-over from the administration of Commissioner Derthick, consisted of Wayne O. Reed, the Deputy Commissioner of Education as chairman; Ruth M. Magin, Chief of O.E.'s Recruitment and Placement Unit, as executive secretary; Joseph M. Shea, chief of Personnel and Organization in the O.E.'s Administrative Management Branch; Lloyd E. Blauch, formerly O.E. Assistant Commissioner for Higher Education; and Finis E. Engleman, the Executive Secretary of the American Association of School Administrators.

Attached to it at that time were 18 "Active Panel Members" all of whom were then serving on the Office of Education's staff, except Galen Jones, who formerly headed the Instruction, Organization, and Services Branch in O.E.'s Division of State and Local School Systems and is now the Director of the Council for the Advancement of Secondary Education established jointly by the National Association of Secondary-School Principals of NEA and the National Better Business Bureau, Inc.

Thus of the 23 people then associated with the examining and evaluation activities by which Office of Education staff members are recruited and promoted, only two were from outside the Office.

In noting that both these non-O.E. staff members are officials of organizations of school administrators affiliated with the NEA, it is pertinent to recall this testimony of former Commissioner of Education Lawrence G. Derthick given at a House Appropriations Committee hearing: "There are also more than 1,000 other educational associations, including state and regional bodies, honor societies, religious education associations, and international associations that are entitled to our assistance; and this we willingly and wholeheartedly give them. Co-operation with all groups interested in education is a part of our regular business."

In still another significant way the composition of the O.E.'s Examining Group is not as broadly representative of American education interests as might be expected. The Division of Higher Education has a substantially larger representation than any of the five other O.E. divisions, for example. Its five "active panel members" are Robert Ifert, Chief, Faculty and Student Services Section; Paul MacMinn, Head, Development and Review Unit, Student

Loans Section; Sebastian Martorana, Chief, State and Regional Organization Section; John B. Rork, Specialist, Campus Planning; and Henry H. Armsby, Chief, Engineering Education.

In contrast four of the other Office of Education Divisions have two representatives each: *State and Local School Systems* (J. Dan Hull, Director, Instruction, Organization, and Services Branch, and Fred F. Beach, Director School Administration Branch); *Vocational Education* (Lane Ash, Assistant Director for Program Co-ordination, and Ward Beard, Assistant Director for State Plans and Grants); *School Assistance in Federally Affected Areas* (Rall I. Grigsby, Assistant Commissioner and Sherrell W. Herrell, Executive Assistant); *International Education* (Bess Goodykoontz, Deputy Director, and Thomas E. Cotner, Director, Educational Exchange and Training Branch).

The Division of Research and Statistics whose title suggests functions which many regard as meriting top priority by the Office has only been assigned one representative (Seerley Reid, the Assistant Director of the Educational Media Branch).

Raising still more serious questions as to the direction in which the personnel practices of the Office of Education are carrying it is the fact that in April 1961 5 of the 10 members comprising the Committee on Mission and Organization of the Office of Education which prepared *A Federal Education Agency for the Future*, whose staffing and other proposals have provoked sharp controversy, were "active members" of the Office of Education's Civil Service Examiner's Panel.

Serving in both capacities were Rall I. Grigsby, Vice-Chairman of the Mission Group, Lane C. Ash, Thomas E. Cotner, Arthur L. Harris, and B. Harold Williams as was Ralph C. M. Flynt, the Assistant Commissioner of Education for Legislative and Program Development who was an ex-officio member of the Mission Committee.

As was true of this reorganization study committee, the Board of Civil Service Examiners of the Office of Education and its Active Panel Members is largely composed of Government administrators. The professional subject-matter specialists for school fields are not represented.

Is the U. S. Office of Education living up to the spirit of the Civil Service laws and the merit system? For instance, are O.E. staff openings being given adequate publicity so that qualified educators throughout the nation have a chance to apply for specific vacancies as they occur? Is the rating and selection of applicants being carried out objectively and impartially? Do qualified and interested Office of Education employees have ample opportunity to be considered for transfers and promotions?

No more challenging opportunity for service to American education awaits the new U. S. Commissioner of Education Sterling McMurrin than evaluating the Office of Education's personnel practices. ■

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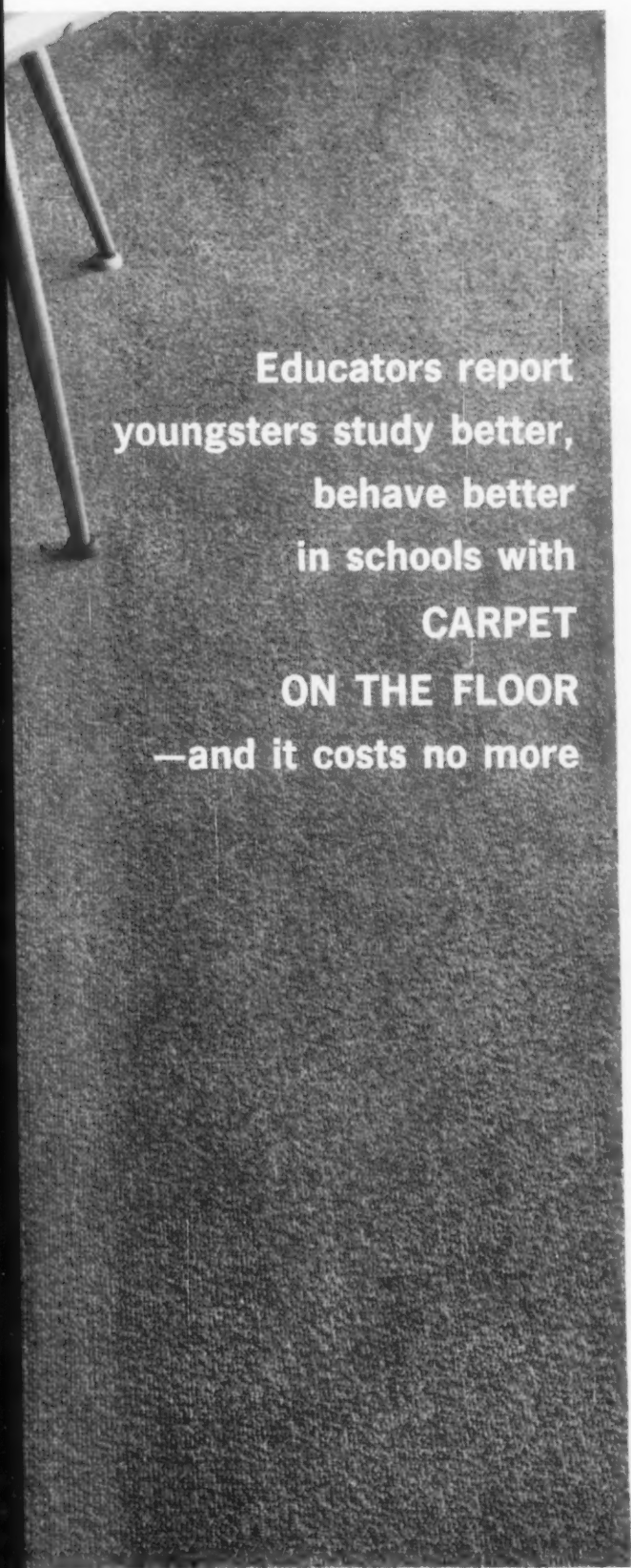
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## What Schools Are Doing About . . .

(Concluded from page 6)

cil's city-wide Book Fair Project in elementary schools.

The high school paperback racks offer a variety of 200 carefully selected low-cost books for supplemental class assignment and individual reading.

The Junior League of Akron recently presented the board of education with a check for \$2,880 for the purchase of a new series of motion pictures to introduce high school students to the study of humanities. The grant was made to provide new tools for the teachers to help young people to read, write, talk, and think intelligently. □

## faculty advisory committee

In Prospect Heights, Ill., a faculty advisory committee for School District No. 23, was formed during the latter part of the 1960-61 year. Membership is voluntary because participation involves responsibilities in addition to the privileges inherent. The initial committee included one teacher elected by the administrators to serve as a key teacher in each building, one teacher elected by the teachers of each school, and one special teacher elected to represent teachers of special subjects. The administrators are permanent members and the superintendent, Dr. George Propeck, serves as chairman.

The advisory committee plans a work-

shop week, prepares the agenda of each faculty meeting, takes care of benevolent activities, refreshments for meetings, the preparation of faculty reports to the board, and other selected activities or projects designed to influence the welfare or morale of the staff members. In addition, the council serves as a clearing house for matters pertaining to curriculum, guidance, and supervision. New ideas are discussed and carefully considered by the committee before referral to the board or used in the schools. The superintendent prepares the agenda for which each member may submit items for consideration.

Through the co-operative thinking of the advisory committee, a more effective plan of administration has been provided for the district's schools. □

## quality education

In Waldron, Mich., for the past two years the citizens of the Wright township district have supported a quality education program by voting additional needed money for the operation of the schools. In 1959, three mills were voted, and in 1960, 1½ mills were voted. The citizens' committee and the board had asked only for the minimal amount needed, without any frills or luxuries considered. By adhering to a strict austerity budget and insisting on full value for every dollar spent, the following things have been accomplished:

1. The educational program has been maintained at the same level without the need to borrow money—thus eliminating interest payments.
2. Bus transportation was maintained without adding new equipment. Large payments on bus notes have the indebtedness reduced by 45 per cent.
3. An athletic program has been carried on. Students are regularly participating in football, baseball, basketball, and track.
4. The board has adopted a community schools philosophy and has opened the school buildings in the evening for a variety of adult classes. All extra work is handled by the school administration and faculty with no cost to the taxpayers. Nominal fees are paid by those enrolled in the classes.

The board has adopted an adequate teachers' salary schedule, has carried on a program of repairs and replacement, and initiated a program of preventive maintenance for all buildings to reduce the costs of later repairs. □

## class-exchange programs

The Benzonia and Frankfort high schools of Benzonia, Mich., are this year sharing teachers and students in a class-exchange program in elective subjects. The communities are six miles apart, and students and teachers are taken by bus for a two-hour period. Sixty students and two teachers are now participating in the program. Next year the program will include a full half-day of exchange classes, instead of the present two-period offering. Subjects being pursued this year are business machines, business law, Spanish, Latin, mathematics, and physics. The new program has made it possible to offer subjects enriching the curriculum, as well as providing enough students for each class enrollment. The program now in its second year, has received excellent approval in each community. No exchange of tuition takes place, but each school district contributes its share of teaching staff members, materials for instruction, and transportation. □

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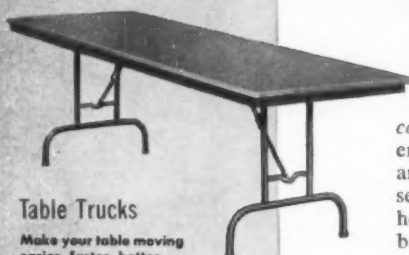


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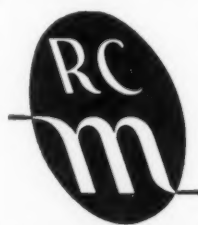
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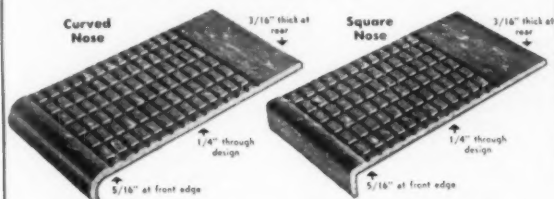


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# NEW PRODUCTS

## SOUND SLIDEFILM PROJECTOR

An optical sound projector for showing still pictures with related sound messages synchronized with each picture has been developed by The Kalart Co., Inc., Plainville, Conn. This new projector can show



Combined Sound and Film

the sound-on-filmstrip programs, and it can also be used to project existing silent, single frame filmstrips as well as individually mounted 35mm. or bantam size slides. The slides may be programmed with an accessory manual or automatic slide changer. By remote control the operator can stop the show at any frame for discussion or to interject pertinent comments. Special Kalart film which is used has the picture and related sound printed on the same piece of film. Write for complete information.

(For Further Details Circle Index Code 0141)

## NEW STUDENT BOOTH

A new student booth for its Medallion Language Laboratory System has been manufactured by Dukane Corp., St.



Available in Two Styles

Charles, Ill. The new design permits more booths per row and more rows per classroom. It also places controls within easy reach and sight of student operators. The new booths are available in two position styles. These units can be joined together in odd or even numbered rows according to classroom dimensional requirements. All booths feature a new, multi-position microphone and headsets. Write for complete details.

(For Further Details Circle Index Code 0142)

## DESK TOP MATERIAL

A new material called Corex has been produced by the C. F. Church Division of American-Standard, New York, N. Y. Corex is a dense and homogeneous material which can be used to cover desk tops, chair seats and backs and other furniture used in various institutions. It creates a solid edge, with no cracks or crevices to catch dirt. Available in a variety of wood tones and decorator colors with varying degrees of gloss and satin finishes, Corex panels come in three sizes and thicknesses. Write for complete information.

(For Further Details Circle Index Code 0143)

## VERSATILE DESK AND CHAIR

Designed to serve the multiple functions of a modern classroom is the new Cluster Combination desk by the Brunswick Corp., Kalamazoo, Mich. It consists of a trapezoidal shaped working surface and chair.



Serves Multiple Functions

It may be used as an individual work unit or clustered in groups of four for team work. Because its surface is designed to fit a cafeteria tray, it can also be used in the lunchroom. The top curves on the student side permitting easy entrance and exit from the desk. According to the manufacturer, the variations in grouping made possible by this new design could result in as much as 20 per cent more seating capacity.

(For Further Details Circle Index Code 0144)

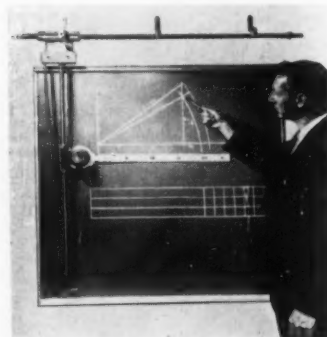
## INDEPENDENT TABLET ARM

A new tablet arm folding chair is so designed that it remains open and standing even when the desk portion is folded out of the way. It is available from Howe Folding Furniture, Inc., New York, N. Y. Called the Howe "101," the chair's tablet arm rests compactly at the chair side when not in use. An all-steel safety lock secures the tablet arm in the desk position automatically. Write for details.

(For Further Details Circle Index Code 0145)

## CHALKBOARD DRAFTING MACHINE

Keuffel & Esser Co., Hoboken, N. J., has produced a chalkboard drafting machine, the Paragon Auto-Flow®. The instrument



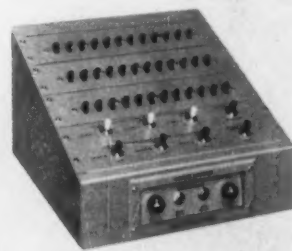
With Horizontal Guide Rail

is for use in instructing mathematics, science, and industrial arts. The Auto-Flow can be mounted to any chalkboard with a horizontal guide rail across its top. Horizontal lines are drawn by the arm of the machine sliding along the guide rail, and vertical lines are made by a horizontal lock that fixes the position of the machine along the horizontal rail. Write for further information.

(For Further Details Circle Index Code 0146)

## LABORATORY CONSOLE

A compact desk-type Central Control Console, with all controls within reach of the instructor, has been manufactured by Switchcraft, Inc., Chicago, Ill. The new console, for use in the language laboratory, enables the instructor to listen, intercom-



Has Controls in Easy Reach

municate, or record the work of any student. The Central Control Console is available in three models, for classes up to 12, 24, and 36 students. Write for further details.

(For Further Details Circle Index Code 0147)

(Continued on page 55)

**CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION**



## New Supplies

(Continued from page 54)

### AIR VAPORIZER

Woodlets, Inc., Buffalo, N. Y., has produced the No. 2500 Ozium Vaporizer. This new method of air treatment helps to reduce the danger of airborne infection when used continuously and in accord with the directions. The vaporizer provides treatment for an area up to 2500 cubic feet. One pint of Ozium Concentrate will last 30 days, running continuously night and day at a cost of less than 10 cents a day. Further details can be obtained by writing to the manufacturer.

(For Further Details Circle Index Code 0148)

### SCIENCE INSTRUCTION UNITS

A new line of elementary science instruction units is now available from the MISCO—Clinton Corp. of Ann Arbor,



For Elementary Grades

Mich. The units are designed to demonstrate general scientific concepts rather than specific technical developments. They cover basic categories such as heat, machines, magnetism and electricity—as well as plants and animals. Available in plastic tote trays with lids, including an instructional teaching guide, the units can be used at all grade levels in the elementary school. A brochure describing the units in detail is available upon request.

(For Further Details Circle Index Code 0149)

### BASKETBALL BACKSTOPS

A new idea in basketball backstops has been developed by Porter Athletic Equipment Co., Schiller Park, Ill. The new Porter 100 line offers remote electrical operation, massive rectangular steel central mast that reduces vibration, and extra-heavy steel support and brace members for an all-over rigid framework. This line is available with any fan or rectangular backboard.

(For Further Details Circle Index Code 0150)

### MEMORY TRAINING UNIT

Universal Data Systems, Inc., Valley Stream, N. Y., has manufactured a new, low-cost electronic educational tool designed for the development of accelerated memory training. Designated the UDS Educational Trainer, the unit is a four-speed phonograph coupled with a tape recorder with an endless tape loop. It will play any size disc up to 12 inches at a choice of four speeds, from 16 to 78 r.p.m. At no time is it necessary for the student to adjust or touch the tape loop. The case



Four-Speed Unit

is made of heavy-duty plywood, covered with a washable plastic. Weight is 25 lb. Details and complete technical data are available upon request.

(For Further Details Circle Index Code 0151)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION

### SEMI-CIRCULAR SHOWER UNIT

A semi-circular shower unit with divided dressing room attachment has been developed by Bradley Washfountain Co.,



Movable Curtain Dividers

Milwaukee, Wis. The circular shape and the movable curtain dividers make it possible to get at the floor with little effort. This unit is useful to institutions which which have limited space. Each unit contains three shower heads with dressing room spaces for six. Write for further information.

(For Further Details Circle Index Code 0152)

### CATALOGS AND BOOKLETS

Write to Skil Corp., Chicago 30, Ill., for a copy of the firm's new catalog on "The Industrial and Automotive Line" which includes power tools for industrial use and vocational training departments.

(For Further Details Circle Index Code 0153)

(Concluded on page 56)

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Solve the pupil wraps problem efficiently with Wallmount Coat and Hat Racks. Mount on any available wall space. Hat shelves and hanger bar adjustable on permanently attached columns to height for any age group. Double hat shelves and double row of spaced coat hooks accommodate 6 pupils per running foot. Basic 3' 2" or 4' 2" units interlock to make continuous racks to fit any space or capacity requirements.

**OVERSHOE RACKS**



Matching units for Wallmount. Keep overshoes off-the-floor in an orderly manner.

Write for "Schooline" Catalog SL-206

**VOGEL-PETERSON CO.**  
RT. 83 & MADISON • ELMHURST, ILLINOIS

"Planning Playspaces" is a portfolio for professional landscape designers and architects available from **Creative Playthings, Inc.**, Princeton, N. J. Included are a 32-page sketchbook of play settings, 48 specification sheets, and installation scale drawings, a 32-page catalog of playground equipment and street furnishings, all in an envelope file.

(For Further Details Circle Index Code 0154)

**American Olean Tile Co.**, Lansdale, Pa., has issued a new, updated edition of its booklet "Ceramic Tile for Swimming Pools," covering the planning of pools for schools, universities, and institutions. Write for booklet 801.

(For Further Details Circle Index Code 0155)

The **National School Supply & Equipment Assn.**, Chicago 3, Ill., offers two leaflets on purchasing. "Getting More Value for Your School Dollar" presents recommendations for purchasing suitable school equipment from the standpoint of efficiency and cost. "Educational Tool Purchasing" deals with buying general school supplies.

(For Further Details Circle Index Code 0156)

Television's unique potential for improving educational and communication efficiency is among the topics treated clearly and concisely in "Television in Teaching." The 28-page book is the latest in a continuing series of material published by the **Educational Electronics Div., Thompson Ramo Wooldridge, Inc.**, New York, N. Y., to help schools plan the most effective use of electronics in education. Write for a free copy.

(For Further Details Circle Index Code 0157)

The new "Custom Lab" line of heavy duty steel laboratory furniture of the **Borroughs Manufacturing Co.**, Kalamazoo, Mich., is fully described in a colorful 38-page catalog. It details the company's line of base units, cabinets, cases, tables, fume hoods, and service fixtures.

(For Further Details Circle Index Code 0158)

Send for a 24-page booklet, "A Guide to the Armstrong Commercial Floor Maintenance System," which tells how to maintain resilient floors. Published by the **Armstrong Cork Co.**, Lancaster, Pa., the booklet includes a three-page section outlining the most common maintenance problems and their solutions.

(For Further Details Circle Index Code 0159)

"The Science Teacher's Guide to Laboratory Glassware" is a new catalog from the **Corning Glass Works**, Corning, N. Y. The Guide describes, illustrates, and prices 27 basic laboratory glassware items for secondary school science courses. Write for a free copy.

(For Further Details Circle Index Code 0160)

A new, 16-page catalog describing folding tables, chairs, and trucks for institutional use is available from **Howe Folding Furniture, Inc.**, New York, N. Y. Send for a copy with accompanying price list.

(For Further Details Circle Index Code 0161)

"Area Floodlighting Made Easy," the 16-page color brochure gives quick reference guides for selecting the correct kind of floodlights for a specific area. Architects and lighting engineers will want to send for a copy from the **Crouse-Hinds Co.**, Syracuse 1, N. Y.

(For Further Details Circle Index Code 0162)

An architect's file on Buildings for Education with modern timber framing is offered by **Timber Structures, Inc.**, Portland 8, Ore. Profusely illustrated, the 16-page booklet shows how engineered timber structural forms are used in one-story modern schools.

(For Further Details Circle Index Code 0163)

"Today's Better Schools are Built of Wood" is the title of a colorful 12-page booklet from the **West Coast Lumbermen's Assn.**, Portland 5, Ore. It features an interesting listing of five-year maintenance records of a West Coast high school.

(For Further Details Circle Index Code 0164)

**Kewaunee Mfg. Co.**, Adrian, Mich., and its affiliate, **Kewaunee Technical Furniture Co.**, Statesville, N. C., offer a new 92-page catalog (Section 5) on Wood Educational Laboratory Furniture for use in secondary schools and junior colleges. Send for a copy of this 1961 edition.

(For Further Details Circle Index Code 0165)

The **Metal Lath Mfgs. Assn.**, Cleveland 14, Ohio, contends it is more economical to build chalkboards and bulletin boards into the walls, than to add them after construction is completed. Architects and school men can send for details in a new Technical Bulletin No. 5, Supplement No. 2.

(For Further Details Circle Index Code 0166)

The application of electric heating to the Comfort Curtain system of classroom heating is explained in a new brochure from **Lennox Industries, Inc.**, Marshalltown, Iowa. The 6-page folder pictures the central electric furnace and styles of electrical duct heats, and explains how heat pump may be applied for both heating and air conditioning.

(For Further Details Circle Index Code 0167)

**CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION**

**MANUFACTURER'S NEWS**

Great expansion in the number of magnetic tape teaching machines in use in schools is the reason for a new special educational service department by **Ferrodynamics Corp.**, Lodi, N. J., makers of magnetic tape and a major supplier to the educational market. The firm's services include duplicating master tapes or recording original tapes of program material prepared by a school, textbook publisher, or company producing the teaching machines.

# READER'S SERVICE SECTION

## INDEX TO SCHOOL EQUIPMENT

The index and digest of advertisements below will help you obtain free information, catalogs, and product literature from the advertisements and companies listed in the new product section. Merely encircle the code number assigned to each firm in the request form below, clip the form and mail it to THE AMERICAN SCHOOL BOARD JOURNAL. Your request will receive prompt attention.

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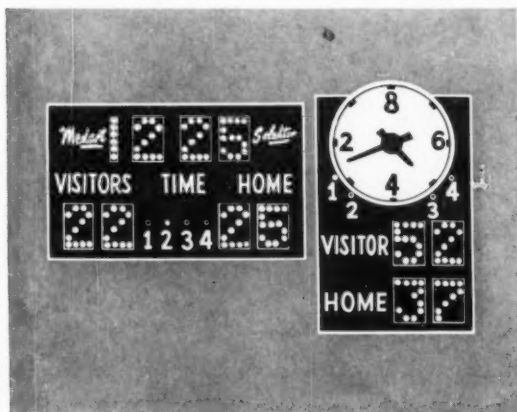
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**SAFE-WAL** — Cushioned wainscot for gyms and multi-purpose rooms. Absorbs and dissipates body impact.

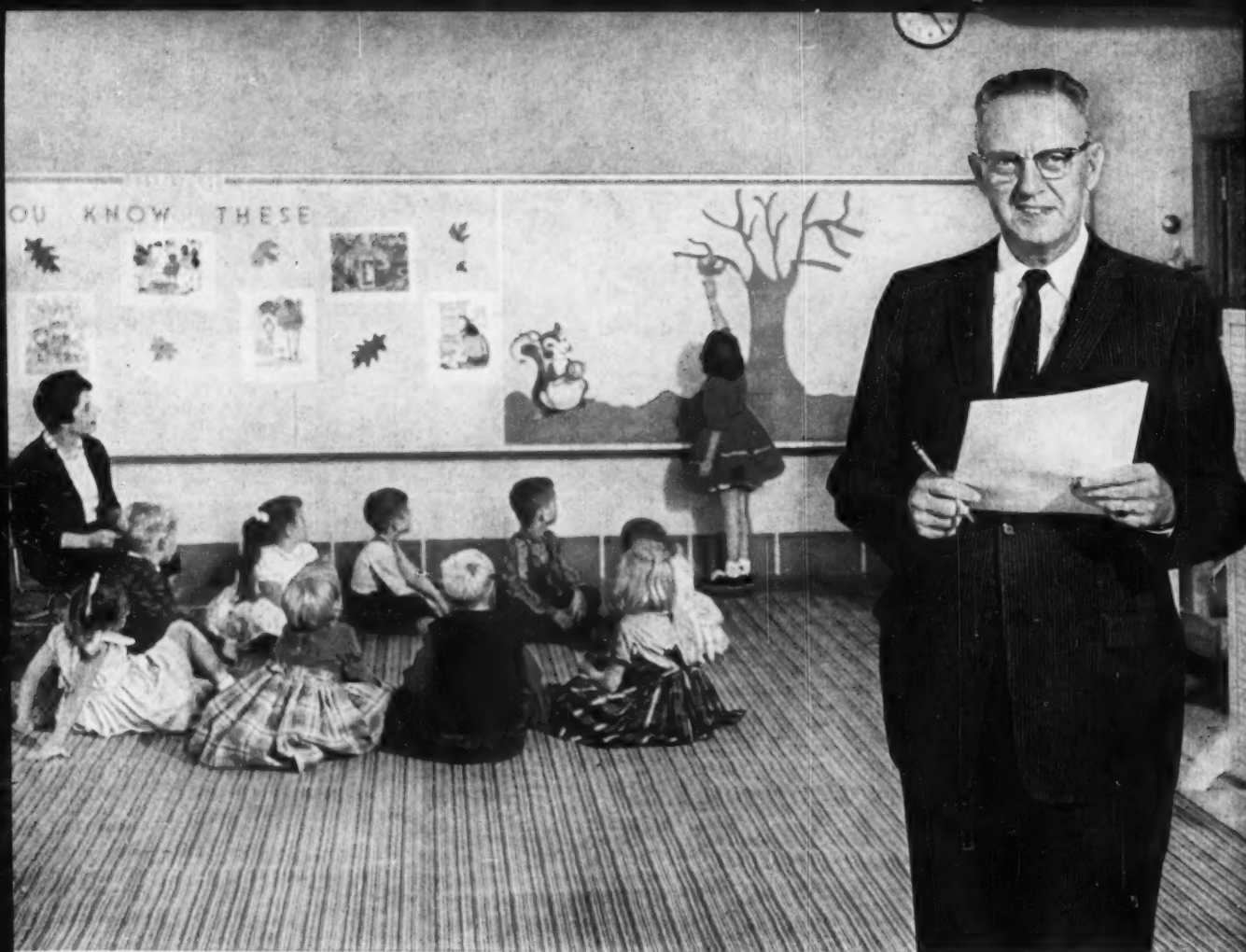
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NISSEN **MEDART** CORPORATION

930 27TH AVE. S.W., CEDAR RAPIDS, IOWA

(For more information from advertisers, use postcard on page 57)



Mr. C. H. Pygman, Superintendent of Schools, District No. 89, Maywood, Illinois, says:



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